

Managing Transitions: Examining the Institutional Army's Transformation following the Vietnam War and Operation Iraqi Freedom

A Monograph
By
COL Charles T. Lombardo
US Army



School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

2015-01

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 04-17-2015		2. REPORT TYPE SAMS Monograph		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE Managing Transitions: Examining the Institutional Army's Transformation following the Vietnam War and Operation Iraqi Freedom				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) COL Charles T. Lombardo				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD KS 66027-2134				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Advanced Strategic Leadership Studies Program, Advanced Military Studies Program.				10. SPONSOR/MONITOR'S ACRONYM(S) CGSC	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This study provides a comparative analysis of the US Army's post-Vietnam transformation with an examination of the Army's recent transformation during the initial phases of Operation Iraqi Freedom. The research will identify those senior leaders whose constructive and positive civil-military relations enabled their service in managing transformation, which created agile and adaptive teams that were capable of adjusting to change. Additionally, effective transformation was built with sound doctrinal underpinning that informed the organizational structure and training initiatives that endured through the next war.					
15. SUBJECT TERMS Civil-Military Relations; Institutional Army Transition; Force development; Doctrine development; Modernization; Readiness					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 84	19a. NAME OF RESPONSIBLE PERSON
a. REPORT Unclassified	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified			19b. TELEPHONE NUMBER (include area code) 913-758-3302

Monograph Approval Page

Name of
Candidate: COL Charles T. Lombardo

Monograph Title: Managing Transitions: Examining the Institutional Army's Transformation
following the Vietnam War and Operation Iraqi Freedom

Approved by:

_____, Monograph Director

Dan C. Fullerton, PhD

_____, Seminar Leader

Robert Tomlinson, PhD

_____, Director, School of Advanced Military Studies

Henry A. Arnold III, COL, IN

Accepted this 23rd day of May 2015 by:

_____, Director, Graduate Degree Programs

Robert F. Baumann, PhD

The opinions and conclusions expressed herein are those of the student author, and do not necessarily represent the views of the US Army Command and General Staff College or any other government agency.

Abstract

Managing Transitions: Examining the Institutional Army's Transformation following the Vietnam War and Operation Iraqi Freedom, by Colonel Charles T. Lombardo, US Army, 67 pages.

This study provides a comparative analysis of the US Army's post-Vietnam transformation with an examination of the Army's recent transformation during the initial phases of Operation Iraqi Freedom. The research will identify those senior leaders whose constructive and positive civil-military relations enabled their service in managing transformation, which created agile and adaptive teams that were capable of adjusting to change. Additionally, effective transformation was built with sound doctrinal underpinning that informed the organizational structure and training initiatives that endured through the next war.

The results of this monograph will show that the senior leaders who managed the post-Vietnam transformation were more effective in managing the reform efforts than the leaders who managed the defense transformation efforts in the early part of the Twenty-first Century. The post-Vietnam reform was developed with a solid doctrinal underpinning that informed the organizational structure and training initiatives that endured through the duration of the transformation and were implemented during the next war. The initiatives were built in a mutually supporting manner, which reduced multiple adjustments and kept the cost down as the Army completed the transformation. In contrast, the defense transformation of 2003 contained dysfunctional civil-military relations that consisted of micromanagement and an over-reliance to transform at all cost. In that environment, the Army failed to refine the capabilities-based network-centric doctrine to reflect the changing nature of war in Operation Iraqi Freedom and Operation Enduring Freedom. The flawed doctrine contributed to the continued investment and mismanagement of reforms like Future Combat System (FCS), Modularity and Army Force Generation (ARFORGEN). The impact of the mismanagement of the recent transformation led to the Army paying a 400 percent increase in readiness and a loss of \$480 billion dollars from FCS cancellations, and oscillations of force structure within the modular design

Contents

Acronyms.....	v
Illustrations.....	vi
List of Tables.....	vii
Part I	1
Introduction.....	1
Research Methodology	6
Part II: Post Vietnam Transformation.....	8
Organizational Initiative # 1 – Total Force Policy	10
Training Domain: <i>Steadfast</i> Reorganization	16
Organization Initiative 2: Army Expansion to the Sixteen-division Force	21
Doctrine Domain: Threat Evaluation.....	26
Doctrine – FM 100-5 to Development of AirLand Battle (ALB).....	31
Part III: Case Study 2: From OIF to RAF	38
Doctrine: Evolution from FM 3-0 to ADP 3-0	43
Organizational Domain: Understanding Modularity.....	49
Training Domain: ARFORGEN	58
Part IV: Analysis of the Case Studies	65
Conclusion.....	76
Bibliography.....	81

Acronyms

AVF	All Volunteer Force
ARVN	Army of the Republic of Vietnam
ARFORGEN	Army Force Generation
BCT	Brigade Combat Team
CGSC	US Army Command and General Staff College
CJCS	Chairman of the Joint Chiefs of Staff
COMUSMACV	Commander US Military Assistance Command Vietnam
CSA	Chief of Staff of the US Army
DCOMUSMAC	Deputy Commander US Military Assistance Command Vietnam
DOPMA	Defense Officer Personnel Management
JCS	Joint Chiefs of Staff
HRC	Human Resources Command
MRRA	Military Retirement Reform Act of 1986 (also known as REDUX)
MRX	Mission Rehearsal Exercise
MTOE	Modified Table of Organization and Equipment
POM/BES	Program Objective Memorandum/Budget Execution System
PCMC	President's Commission on Military Compensation (Zwick Commission)
QRMC	Quadrennial Review of Military Compensation
SAMS	School of Advanced Military Studies
TF	Task Force
QDR	Quadrenial Defense Review
VCSA	Vice Chief of Staff of the Army

Illustrations

Figure 1. Army Linear and Cyclical Force Generation Models..... 59

Figure 2. Transition to the Combined Readiness Model 63

List of Tables

Table 1. Army Staff Reduction as a Part of Operation Steadfast	17
Table 2. Force Structure Changes TAA 2008	52
Table 3. Corps HQ Changes in Modularity.....	53
Table 4. 1981 DoD Breakdown of Staff Billets in the Pentagon	55

Part I

Introduction

Library stacks bulge with treatments of particular wars, campaigns, battles, generals and armies. Yet historians have largely neglected the course of events leading to given wars' conclusion and its consequence for a peace that followed. Furthermore, what is often lost in the throes of terminating war is careful attention to the post-war era - consolidating the gains of victory or ameliorating the cost of defeat, and in either case repairing the damage wrought by conflict and preparing the force for the next battle.

Mathew Moten, *How America Ends its Wars*

Today, the US Army continues to work through its historical challenge of transformation in an era of fiscal uncertainty. Transforming an Army is a monumental task in peacetime. It is increasingly difficult to execute during the nation's longest war, and under a looming cloud of historic debt. This study provides a comparative analysis of the US transformation at the conclusion of the Vietnam War through the management of Army transformation that occurred during the execution of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF).

Based on the lessons learned from the post-Vietnam transformation from 1973 to 1981 and the most recent transformation from 2003 to 2012, this research will examine the manner of reforming major initiatives that drove successful transformation. In understanding these initiatives, it is important to understand that military transformation is about more than doctrine. Therefore, attempts to implement comprehensive reform must be supported by critical analytical efforts that connect each of these initiatives.¹ In addition to reviewing the methods of the major doctrinal, organization and training initiatives, the monograph will review the sustainability of the initiatives implemented in each era and

¹ Suzzane C. Nielsen, *An Army Transformed: The US Army's Post-Vietnam Recovery and the Dynamics of Change in Military Organizations* (Carlisle Barracks: Letort Papers, 2010), 3.

then evaluate the Army's ability to conduct those course corrections in sustaining the initiatives. This monograph defines "sustainable initiatives" as enduring and cost effective practices that increased the Army's efficiency and effectiveness in preparation for the next war. The monograph will further evaluate the institutional agility and adaptability that the senior leaders exhibited in managing the implementation of the initiatives. The research will explain that the senior leaders who participated in constructive and positive civil-military relations were successful in managing transformation and created agile and adaptive teams that were capable of adjusting to change. Additionally, effective transformation was built with sound doctrinal underpinning that informed the organizational structure and training initiatives that endured through the next war.

Though dissimilarities are numerous and significant, the first decade of the Twenty-first Century was similar to the Vietnam War years in that both periods proved to be very challenging for the US Army. Both were in vigorous debates about what the Army of the future should look like and both eras continued to see enormous operational demands.² There were, however, obvious distinctions between the two eras. The review of the post-Vietnam War transformation was executed in relative peace with the transformation efforts being validated fifteen years later during the US Army's 1991 decisive victory in the Persian Gulf War. The reforms in rebuilding the Army after Vietnam were codified as inter-related and mutually supporting initiatives. In reality, the Army began transforming the organizations and personnel initiatives well before the end of the Vietnam War and benefited from the timing of Arab-Israeli War in 1973 in shaping the key doctrine and training reforms that transformed the Army. The most recent transformation was executed under less favorable conditions. The American military's

² Nieslen, 4.

mission in Iraq and Afghanistan required the Army at large, and units and soldiers across the force, to execute the transformation while simultaneously undertaking combat operations in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF).³

In reviewing each era, the author will first examine the civil-military tenor that existed during the period of each case study. In analyzing the Civil Military Relations (CMR) that shaped the transformation in the two case studies, the author viewed each set of leaders through the CMR theories identified by Dr. Chris Gibson's *Securing the State*. In his book, he cites a "Madisonian Approach" that calls for senior military and civilian leaders within the Department of Defense to form a partnership that will enable equal collaboration in advising and assisting elected officials in the pursuit of national security objectives.⁴ This approach is a departure of the normative objective theory of civil-military relations and discards the subjective control exhibited during Secretary of Defense's Robert McNamara and Donald Rumsfeld tenures to provide a more collaborative approach with senior military leaders and the appointed civilians within the Department of Defense (DOD).⁵ In addition to the CMR literature, the

³ Doug Lovelace, "Beyond the Battlefield, Institutional Army Transformation Following Victory in Iraq," *Army Review* (Carlisle Barracks: SSI, 2012), iii.

⁴ Christopher Gibson, *Securing the State: Reforming the National Security Decision-making Process at the Civil-Military Nexus* (Burlington: Ashgate Publishing Company, 2008), 1. For a description on the normative theory of objective military relations see Samuel Huntington, *Soldier and the State*, (Burlington: Ashgate Publishing Company, 1957) Samuel Huntington posits that effective civil- military relations should be in the form of objective civilian control over their armed forces. This control is indicated by the following factors; (1) the military's adoption of professional ethos and their recognition of boundaries of professional roles, (2) effective subordination of the military to civilian political leadership that formulates strategic directives on foreign and military policies, (3) recognition and approval from political leaders to the professional authorities and autonomy of the military and (4) minimal intervention of the military in politics and of politicians in military affairs.

⁵ Samuel Huntington, 42.

author integrates multiple studies and reports from the Government Accounting Office and Congressional Research Services on expanding staff structures, staff functions, and the US Army's integration to Modularity and Army Force Generation (ARFORGEN) cycles over the past eight years.

In the first case study, the Army benefited from the continuity gained by Generals William Westmoreland's and Creighton Abrams' development of the inter-related initiatives that began in 1970 with the announcement of the Total Army Concept and extended through 1982 with completion of the AirLand Battle Doctrine. General Westmoreland initiated many of the reforms such as the Army Total Force Concept and the All-Volunteer Force and led the Army through the initial designs of the *Steadfast* reorganization during his final two years as the Army Chief of Staff. These efforts during the final stages of Vietnam War set the conditions for the Army's doctrinal modernization and force design reforms that General Abrams would later lead from 1972 through 1974. Along with the shared vision of his predecessor, General Abrams was able to maintain a collaborative relationship with Secretaries of Defense Martin Laird and James Schlesinger in establishing a healthy climate in which the civilian leaders entrusted the military in managing the department level innovation and change during the 1970s.

General Abrams successfully led the reform of the Army's force structure through the execution of the Total Force Concept, which integrated the reserve component and implemented Operation *Steadfast*, which shifted the responsibility and authority in training and certifying forces with the creation of Training and Doctrine Command (TRADOC) and Forces Command (FORSCOM) out of the existing Continental Army Command (CONARC). The reform executed early in the post-war transformation led to the refinement of the 1976 Field Manual (FM) 100-5 *Operations*, as a single, conceptual expression of how to employ all the Army's various systems in offensive and defensive

operations.⁶ Through the initial efforts of reform, General Abrams was able to hand off the completion of transformation to his protégés Generals William Depuy and Don Starry, who would lead the Army through the institutional revolution during the 1970s.

The second case study highlights the multiple challenges that recent senior military leaders faced during critical transitions at the beginning of OIF. This friction began with a period of disruptive civil-military relations between the Secretary of Defense Donald Rumsfeld and Army Chief of Staff, General Eric Shinseki. Their tumultuous relationship was troublesome to the Army's ability to adapt to the changing nature of war upon the initial operations into OIF and OEF. The first problem identified was the Army's struggle in defining the nature of threat after the initial invasion in Afghanistan and Iraq and adapting the modular force to be optimized to defeat the newly-defined character of conflict.

The second point of friction is identified by the Army's organizational mismanagement in modularity. Modularity was centered on creating organic combined arms teams and growing the Brigade Combat Teams (BCT) to become a more adaptive and tailorable formation. This was to be done with the notion that the operational and strategic formations would yield the authorities and responsibilities to the BCT. Yet, during the most recent transformation, the Army doubled the size of multiple three and four-star headquarters in an era that intended to focus toward BCT-centric operations. Therefore, while the Army was moving toward employing the BCT as the unit of action, it held on to its Cold-War structures at the Department and Major Subordinate Command structures in generating and sustaining the force. This inconsistency led to department-level management of

⁶ Paul Herbert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations* (Leavenworth, KS: Combat Studies Institute, 1988), 7.

operational level tasks. Moreover, the strategic level headquarters remained focused on pre-war force generation tasks and diffused the responsibilities of managing the implementation of the Army Force Generation (ARFORGEN) “cyclical readiness” to the overburdened BCTs. While the Army initially struggled at the beginning of the most recent transformation, they eventually adjusted the BCT to a formation that is capable of operating along a range of military operations. Finally, the Army modified its force generation process to operate in the fiscally constrained environment that exists today and supports the regional aligned force construct.

Part one is the introduction, review of the background events that contributed to the tenor of civil-military relations, methodology of analyzing data and a summary of Army post conflict drawdown of force structure and the key civil-military dialogue that shaped it. Part two of this monograph analyzes General Creighton Abrams’ actions in the civil-military relations throughout his time as a senior military leader in Washington, DC through his service in Vietnam and his impact in managing the transition to rebuild the Army at the conclusion of the Vietnam War. Part three reviews the contemporary civil-military issues following the Initial phases of Iraqi Freedom that include the integration of Modularity, implementation of the ARFORGEN cycle to transitioning to the employment of Regionally Aligned Forces (RAF) in 2012. Part four of the monograph will provide the analysis from both case studies and conclusion of the topics reviewed.

Research Methodology

The research methodology used in this monograph evaluates each case study in two areas. The first part combines attributes from Dr. Chris Gibson’s Madisonian approach of CMR with General Martin Dempsey’s practitioner theories of civil-military relations as outlined in a 2014 speech at the Center for a New American Security (CNAS). General Dempsey provides four guiding principles in communicating in

the civil-military dialogue. The first principle is to maintain military advice on military and strategic matters and be aware that the advice is immediately for attribution and in the public eye. The second principle acknowledges that the military professional owns more than half of the responsibility in building the civil-military relationship by establishing the framework of building the dialogue for discussing military options. Third, the military leader must render advice that informs the elected official with a sense of the national will that the military advice is of value. Finally, the senior military leader must maintain effective communication within the Joint Force in order to provide the elected official an accurate and consistent understanding of the impacts of the military recommendation.⁷ The second component of the research methodology analyzes each case study reviewing initiatives through the lens of the doctrine, organizations and training, material, logistics, personnel and facilities (DOTMLP-F) in implementing, managing and sustaining systems during transformation. Because the “Leader Development”, “Material” and “Personnel” domains are key criteria in all three aspects of the DOTMLP-F process, this monograph will solely focus on the Doctrine, Organization and Training systems of the force analysis process.⁸

As stated in Army Regulation 71-32, *Force Development and Documentation*, the force development process starts with the development of operational capabilities that were specified in national strategies and guidance. The capabilities were developed against a threat and assist the

⁷ Martin E. Dempsey, “Managing Transitions and the State of Civil-Military Relations in the 21st Century.” Speech to the Center for New American Security (CNAS). Washington. DC, 15 Nov. 2014.

⁸ Harold Lord, *How the Army Runs* (Carlisle Barracks, US Army War College Publication, 2013), 5-11. The DOTMLPF is a framework for capability analysis that is the first step in the functional solutions analysis within the Joint Capabilities Integration Development System

services in developing a central narrative for developing doctrine. The strategic guidance with the foundational underpinnings of threat and range of military options would drive the force structure, organization and training necessary to fulfill the obtainment of the National Security Objectives.⁹

Part II: Post Vietnam Transformation

In reviewing the transformation following the Vietnam War, the author will provide context in explaining the timing and employments of the reforms. The processes used in rebuilding the Army after Vietnam began in earnest in 1970, with three of the five major reforms initiated prior to conclusion of the Vietnam War. First, Secretary of Defense Melvin Laird announced the initial phases of the Total Force Concept that migrated a bulk of the support functions to reserve components and integration of Round-Out Brigades.¹⁰ Second, Army Chief of Staff (CSA) General William Westmoreland initiated Project Provide in 1969 that led to the transition to the All-Volunteer Force. Third, General Westmoreland implemented the preliminary reorganization task of Project Steadfast in April of 1972, that began reorganizing the Continental Army Command (CONARC), due to span of control issues and functional redesign issues with the Department of the Army Staff.¹¹ The Project *Steadfast* final draft was released with establishment of initial operating capacity (IOC) for both TRADOC and Forces Command to be set by July of 1973.

⁹ Ibid., 5-1.

¹⁰ Alice Buchalter, and Seth Allen, *Historical Attempts to Reorganize the Reserve Components: A Report by the Federal Research Division, Library of Congress under an Interagency Agreement with the Commission on the National Guard and Reserves* (Washington DC: Library of Congress, 2007), 28.

¹¹ Jean R. Moenk, *Operation Steadfast Historical Summary* (Fort Monroe: Historical Offices of US Forces Command and US Training and Doctrine Command, 1973), 11.

The personnel and organizational reforms were underway prior to the Arab-Israeli War of October of 1973. The “Yom Kippur War” injected a sense of urgency in accelerating the update of Field Manual (FM) 100-5 *Operations*, which resulted in the establishment of Airland Battle Doctrine eight years later. Moreover, the Yom Kippur War provided clarity in strategic direction, force size and capabilities the Army needed in defeating the Warsaw Pact threat. With respect to the remainder of the interrelated reforms after Vietnam, the expansion to the Sixteen-Division Force was announced in the April 1974 Army Posture Statement by CSA General Creighton Abrams and implemented after Project *Steadfast’s* completion in 1974. The final reform was the doctrinal evolutions from 1974 to 1981 that developed FM 100-5 *Operations* “Active Defense” through the creation of the Airland Battle Concept in March of 1981. As indicated in the methodology, the timing and synchronization of reform at the end of Vietnam was unorthodox, but it illustrated the institutional agility with which senior leaders within DoD operated as they transformed the Army in the 1970s.

The rebuilding of the Army after the Vietnam War took the dedicated efforts of a generation of officers. General Creighton Abrams paved the way for these efforts, but the development of key protégés was essential in carrying on his vision as he succumbed to cancer in 1974, two years into his tour as the Army Chief of Staff. The development and placement of General William Depuy and General Don Starry in TRADOC provided ideal continuity in leadership in leading the transformation of the Army’s generating force and the means to implement the three initiatives addressed in this case study, the Total Force Policy, the implementation of Project Steadfast and expansion to the Sixteen-Division Army.

In addition to the comprehensive reform, General Abrams aggressively collaborated with his civilian superiors and maintained positive flow of communication throughout his tenure as senior

military leader. General Abrams' earlier duty as the commander of the Civil Support Task Force (TF) in 1962 was a key event that signaled his reputation as an effective leader and set the tone for future civil-military relations later in his career. His duties as the TF Civil Support Commander placed him in direct communication with President Kennedy on a daily basis for three months.¹² The "mission first" focus gave General Abrams great credibility with the senior leaders inside of DoD and at the White House. General Abrams understood that part of the issue with providing timely support to the states was military leader's inability to articulate the capabilities of the Army to the President and the civilian officials.¹³ General Abrams leveraged the lessons learned during his service in the Civil Rights Movement in establishing key relationships with senior civilians like Secretaries Cyrus Vance, Melvin Laird and Robert Schlesinger. The friendships forged during his service as the commander of the TF Civil Support would help him a decade later as he began transforming the Army's force structure at the conclusion of the Vietnam War.

Organizational Initiative # 1 – Total Force Policy

In 1970, Secretary of Defense Melvin Laird announced the "Total Force Concept," which emphasized the concurrent consideration of Active and Reserve components in developing military

¹² Moenk, 165.

¹³ Ibid., The first event was General Abrams leadership during federal service support to the Civil Rights Crisis in the early sixties. During the execution of providing federal support to the Mississippi National Guard, Attorney General Robert Kennedy injected himself into the operational command and in doing so, panicked and employed US Marshals prior to General Abrams' Task Force being established. The President and General Abrams had a heated exchange, but Abrams was able to communicate to the President what had happened and why it happened. After the mission, General Abrams went to the White House and provided an after action review for future operations.

capability to support national strategy. Further, Secretary Laird's intent was to implement select reserves units for preparation to serve as the initial and primary source for augmentation of the active forces in any future emergency.¹⁴ In 1973, Secretary of Defense James Schlesinger added his support for the Total Force Concept by transitioning it to a formalized policy.¹⁵

The Total Force Concept was motivated by a combination of Congressional cuts in defense spending, the ending of the draft and the need to realign the force mix to optimize the active component with the greater proportion of combat formations. At the time, the Total Army policy was adopted, many believed that the Vietnam disaster had resulted from a failure of both a clearly-articulated policy and will. The great debate on goals had come late in the war. If American military forces could not be committed without mobilization of the reserves, then the public debate would have to take place at the outset.¹⁶ Under the Total Force Policy, "dependence on Reserve Components served as an extra-constitutional tripwire on the presidential use of military power." This created the need to activate the National Guard and Army Reserves upon mobilizing the Army for war.¹⁷ From an Army perspective, General Abrams was determined to maintain a clear linkage between the employment of the Army and the engagement of public support for military operations by moving essential sustainment

¹⁴ Bennie Wilson, *The Guard and the Reserves in the Total Force: The First Decade 1973-1983* (Washington, DC: NDU Press, 1985), 148.

¹⁵ Ibid.

¹⁶ Lewis Sorely, *Creighton Abrams and Active-Reserve Integration in Wartime* (Carlisle Barracks: Parameters, 1991), 45.

¹⁷ Alice Buchalter and Seth Elan, *Historical Attempts to Reorganize the Reserve Components* (Washington, DC: Library of Congress, 2007), 15.

functions into the reserve components. This created the need to activate the National Guard and Army Reserves upon mobilizing the Active Army for war.¹⁸

The goal of integrating the reserve components into future wars would ensure that the American public would be able to provide a voice into the decision to declare war or conduct an intervention. Douglass Kinnard suggests that if President Johnson had decided in 1965 to fight the Vietnam War with reserve component forces, rather than draftees, he would have been forced to ask for explicit congressional authorization.¹⁹ Using the existing Total Army force could have prevented the need to increase the Active Army to 1.57 million soldiers in three years.²⁰

The Roundout-Brigade is the second area of examination in the Total Force Policy. The “Reserve Component Roundout-Brigade” designated brigade-size units of the Reserve Component to round out or align with Active Army Component Divisions. Proponents of the Roundout Concept believed that more Active Divisions would boost the confidence of US allies and better support the policy of deterrence of potential enemies. The concept was designed to cut costs, as based on the premise that reserve forces cost less than active forces.²¹ Under the Round-Out concept, a National Guard maneuver brigade, when

¹⁸ Ibid., 15.

¹⁹ Douglass Kinnard, *The War Managers* (Annapolis: Naval Institute Press, 2007), 23. The Gulf of Tonkin Resolution, which provided the legal basis for Johnson's actions on Vietnam, would not have given him sufficient authority to call up the reserve components without declaring a national emergency.

²⁰ Dale Herspring, *The Pentagon and the Presidency* (Lawrence: University Press of Kansas, 2005), 169.

²¹ J.J. McGrath, *The National Training Center Matures, 1985-1993: Reserve Component Units at the National Training Center* (Leavenworth: CSI, 1993), 229.

mobilized, was assigned to a two-brigade Active Component division to form a fully structured three-brigade division. Active Component-gaining commanders provided war training mission guidance, approved Mission Essential Task List (METL) and provided priorities for wartime mission planning.²² The Reserve Component Roundout-Brigade Program commenced in 1973 when the Hawaii Army National Guard's 29th Infantry Brigade rounded out the two brigade 25th Infantry Division, which had never reestablished its third brigade upon return from Vietnam.²³

There were several reasons why the Roundout-Brigades made sense. First, the brigades capitalized on the gains from war that enabled the Army to maintain the corps of cadre that might have otherwise demobilized completely out of the Army. Second, it provided the Army with the ability to expand the Army's division force structure in the time of a drawdown, which sent a message that increased the confidence of the US allies, specifically the North Atlantic Treaty Organization (NATO) and signaled a willingness to deter the Soviet Union in countering their massive build-up in Central Europe. Third, there were cost savings associated with the Roundout strategy. Within the first year of fully implementing the Roundout-Brigades, the National Guard units operated at thirty-six percent the rate of

²² Stephen L. Goff and Ralph E. Kahlan, "The Roundout Program: Is It Still Valid" (paper, US Army War College Study Group, 1991), 3.

²³ John McGrath, *The Brigade: A History, Its Organization, and Employment in the US Army*, (Leavenworth, KS: Combat Studies Institute, 2004), 78. The Roundout concept was extended to units to deploy early as contingency forces under the Rapid Deployment Joint Task Force (RDJTF), created in 1980 and redesignated as the US CENTCOM in 1983. The RDJTF's early deploying heavy division, the 24th Infantry Division, remained at two Brigades, being rounded out by the Georgia Army National Guard's 48th Infantry Brigade (Mechanized).

equivalent active units to achieve the same nominal readiness level (i.e. C-rating).²⁴ The costs were realized in the obvious form of not paying a full brigade full time in manning and training dollars; they were additionally realized in the formal relationship that allowed Active Components to provide Roundout units access to the training and maintenance systems and best practices that their Active counterparts were using. This relationship gave new emphasis to the Reserve Component units, since they would now be tied to Active Duty fighting forces, and put teeth into the idea of a Total Army. As a result, modern equipment was acquired for the Reserve Components at the same levels as Active units.²⁵

A by-product of the Roundout system was a subtle imperative. The integration of the Roundout-Brigade concept fostered improved relations between the National Guard and Active Component. It enabled the leaders that attended the professional military education courses together to participate in training events throughout their careers that helped improve the cross-cohort relations. The existence of the Roundout-Brigade that maintained a formal partnership with an Active Component division provided increased rates of success as a credible operational reserve.²⁶ The neglect of the reserve components' unit-level readiness was apparent for the few units mobilized for the Vietnam War.

The collective degradations of equipment and scarcity of people during the Vietnam War questioned the legitimacy of the Army Reserve and National Guard's ability to serve as a credible

²⁴ Robert L. Goldich, *The Army's Round-out Concept* (Washington, DC: Government Printing Office, 1991), 8.

²⁵ Goldich, 8.

²⁶ McGrath, 79.

strategic Reserve.²⁷ In May of 1968, the 737th Medium Transportation Company departed Yakima Washington on mobilization orders. Their unit was ill-equipped and needed several Inactive Ready Reserves (IRR) soldiers from the Reserve Enlisted Personnel (REP) Force Pool to fill out the personnel shortages in their company. The 737th Transportation Company was on orders to receive twenty-three of the 5,000 Army Reserve total REP soldiers. The IRR could only produce 1,060 soldiers fit for service in the active Army. The 737th Medium Transportation Company received fifty percent of their required IRR soldiers and deployed to Vietnam at eighty five percent strength.²⁸ This ad-hoc way of assembling enablers invalidated the notion that the reserve components were a viable strategic reserve. It further illustrated the declining state of readiness that the reserve components had endured during the war. The erosion of the combat support and combat service support gave further credence to shifting key functions from the Active Army component into the reserves. The immediate transfer of experienced leaders and units and maintained equipment could accelerate improved readiness as the Army transitioned during the post-Vietnam drawdown.

The reorganization of the Operational Army, with the creation of the Total Force policy, aligning the reserve components into the support formations and forming habitual relationships with Round-Out Brigades to active units allowed the Army to create the Total Army Concept. This modification of the force structure that moved major combat support and combat service support mandated that in order to deploy the active Army meant deploying the reserve components. The remaining piece to formalize

²⁷ Bruce Clark, *Twenty-Five Year War* (Lexington: University of Kentucky Press, 1984), 170.

²⁸ Currie, 80.

the training and integrate consistencies in developing, training and certifying the Total Force was achieved through the reforms brought out by *Steadfast* Reorganization in spring of 1973.

Training Domain: *Steadfast* Reorganization

The first major step in restructuring the United States Army to meet the challenges of the last quarter of the Twentieth century was the Steadfast reorganization of 1972–1973, which created the basic structures still retained by the Army today.²⁹ The reorganization was brought about by the consensus from the department of Army Staff that three Army functions would assume an increased importance in the immediate future. The *Steadfast* reorganization's purpose was to analyze the roles of the Continental Army Command (CONARC), its subordinate armies in the Continental United States, the Military District of Washington, the roles of the Combat Developments Command and the Army Materiel Command, the increasing number of direct reporting units to the Army Staff, and the size of and procedures used by, the Department of the Army headquarters staff.³⁰ Various factors marked a need for reorganization since the Army's last reorganization in 1962 that resulted in the establishment of CONARC. The STEADFAST reorganization was built upon these assumptions:

The need to improve the fighting forces versus the support units; the need to do more with fewer people and less money; the increased dependency of the Army on its reserve components; the Congressional and Defense Department – directed need to improve the

²⁹ Charles R. Schraeder, *History of Operations Research, Vol. III: 1973-1995* (Washington, DC: US Government Printing Office, 2009), 26.

³⁰ *Headquarters, Department of the Army (HQDA) Report of the Special Review Panel on DA Organization, Vol. 1, Tab B* (Washington, DC, HQDA, 1971). CONARC was created in 1955 from the Davies study of 1948 that recommend combining the Army's command and control and training functions under one unified command. However, no attempts were made to eliminate the inherent conflicts between the training responsibilities and the command and control of ground troops.

process of developing, testing, acquiring new equipment and material; and the need to improve the soldier's morale, and esprit through personnel management.³¹

The results of the study indicated that CONARC's span of control was not optimized to balance resource needs of the operating force and the generating force. Additionally, CONARC did not have adequate command and control structures in place to supervise properly the Army's service schools, training centers and Combat Development Commands.³² The Steadfast reforms aimed at streamlining the Army for greater efficiency and coherence and resulted in two new Army major commands, the United States Army Training and Doctrine Command (TRADOC) and the United States Army Forces Command (FORSCOM).³³ These two commands, along with the Army Materiel Command, were charged with the maintenance of combat ready forces, the training of individuals in tactics, techniques and procedures, and the development of doctrine that nest new force structures and materials.

In addition to creating TRADOC and FORSCOM, the Steadfast reorganization moved the Combat Development Command from CONARC to TRADOC to align training and education with concepts developments. It realigned the Reserve Officer Training Corps (ROTC) into a Major Subordinate Command (MSC) commanded by a Major General with four regions that were commanded by a Brigadier General, formulated US Army Recruiting Command, realigned Installation Commands under both FORSCOM and TRADOC Headquarters and reduced the Army to four subordinate Army Commands that were regionally aligned in the Continental United States. The Steadfast reorganization saved the

³¹ Francis T. Julia, Jr., *Army Staff Reorganization, 1903–1985* (Washington, DC: US Government Printing Office for Analysis Branch, CMH, 1987), 35.

³² Moenk, 3.

³³ Julia, 22.

Army \$22 million dollars in FY 1973 and reduced Army's field operating and service level billets by 7,147 billets.³⁴

The implementation of the Steadfast Reorganization began in the early part of 1973. On July 1, 1973, both FORSCOM and TRADOC became official commands and gradually absorbed the functions and command responsibilities of CONARC, which would be dis-established in December of 1973.³⁵ In order to empower and leverage the capabilities of two additional four-star headquarters, General Abrams distributed the authority and responsibility to both TRADOC and FORSCOM. In doing so, General Abrams significantly reduced Army Management Headquarters Activities, which comprised Headquarters, Department of the Army (HQDA), and major subordinate command headquarters (MSCs), which began in fiscal year 1974.³⁶ A further delineation of the HQDA staff reductions is shown in Table 2 and the end state of the DA Staff structure depicted Table 3, which follows.

Date	Military	Civilian	Total
Jan 1969	2,983	6,617	9,600
June 1972	2,683	4,877	7,560
June 1973	1,904	2,912	4,816
June 1974	1,898	2,821	4,719

³⁴ Moenk, 144-147.

³⁵ Schraeder, 35.

³⁶ <http://www.history.Army.mil/books/DAHSUM/1974/ch04.htm>, the Army Management Headquarters Activities, which comprise HQDA, major command headquarters, subordinate major commands (CONARC) and their staff support activities began fiscal year 1974 with an end-strength of 33,614 military and civilian spaces. General Abrams reduced their end strength at the end of fiscal year 1974 to 28,720 and by the end of fiscal year 1975, 21,803. An overall reduction of 11,811 spaces was achieved over a two-year period, of which 7,058 represent jobs eliminated and 4,753 a transfer of functions.

Table 1. Army Staff Reduction as a Part of Operation Steadfast

Source: William G. Bell and Karle E. Cocke, *Department of the Army Historical Summary* (Washington DC: CMH, 1973), p. 48.

The two unique missions assigned to TRADOC were, first, to serve as the principal agent in the Army in developing and managing training and second, TRADOC was given the mandate to develop plans and programs for the introduction of new systems into the Army and develop appropriate training and doctrinal literature.³⁷ To do this, General Depuy, the first TRADOC Commander, decentralized the combat development responsibilities to the branch-school commandant level and initiated standard scenarios as common frameworks for consistency in doctrine and material testing.³⁸ TRADOC also managed the Army Reserve Officers' Training Corps program through four regional activities. At the end of 1973, TRADOC had an end-strength of about 180,000 military—some twenty-two percent of the active force—and employed about 49,000 civilians across the United States.³⁹

The establishment of TRADOC had immediate impacts on the Army. First, the Army elevated the responsibility to train initial military recruits in the new All-Volunteer Force under the authority of a four

³⁷Schraeder, 29.

³⁸Herbert, *Deciding What Has to Be Done*, 77. When Depuy assumed command of TRADOC, he was determined to provide the Army with the sort of analytical data it needed to support its modernization program. To do this, he intended to rationalize doctrinal and equipment development into a single process. This systems analysis approach to warfare, with emphasis on justifying the Army's investment in weapons, was why in 1973 he created scenarios as a major analytical device. Moreover, it pervaded the doctrine that he and his assistants wrote into FM 100-5, throughout 1975.

³⁹ Moenk, 11.

star general and a focused field-operating agency (FOA) that was not consumed with departmental tasks associated with running the Army. Second, TRADOC was given the responsibility of combat developments. Unifying combat developments and doctrine into command enabled the Army to research, design and develop materials that were nested with future operational concepts. In March of 1973, CONARC transitioned functions to the HQ TRADOC at Fort Monroe, Virginia creating three new integrating centers: the Combined Arms Center at Fort Leavenworth, Kansas; the Logistics Center at Fort Lee, Virginia; and the Administration and Personnel Center at Fort Benjamin Harrison, Indiana.⁴⁰

Another reform that emerged from the *Steadfast* reorganization was the integration of the Combat Development Command (CDC) into TRADOC. The CDC integrates branch concepts and modernization capabilities for inclusion into future Army Operating Concepts. In 1973, Fort Knox began testing night vision for the M60A3 Tank to validate the capability for inclusion as one of the key performance parameters for the XM1, a new tank design which was under prototype development. Then-MG Starry used two platoons of “School Troop Tanks” with students and cadre along with the engineers from Fort Belvoir who integrated early developments of Thermal Imagery Systems for the gunner, driver and Tank Commander stations to evaluate night fighting capability. The experiment cost \$10,000 dollars and took two weeks. The second experiment was generated from lessons learned from the Yom Kippur War. While the Armor Center representatives were in Israel in late 1973, they learned that the Israelis lost thirty percent of their tank losses to internal secondary fires caused by small arms contact. As the team returned to Fort Knox, they established an experiment to identify non-flammable

⁴⁰ 1973 DAHSUM, 46; *Revised Steadfast Detailed Plan*, Incl 1 (Executive Summary), 3.

hydraulic fluids. The experiment took five days and cost \$300.⁴¹ More importantly, these two late experiments were retrofitted to the M60A3, becoming spiral technologies for the XM1. The later experiment with hydraulic fluids led to the halon system, which is in all land and air platforms in the Army's inventory today.⁴²

Operation Steadfast provided the institutional framework that enabled mission command to major subordinate commands beyond the department and empowered TRADOC and FORSCOM to manufacture individual and unit readiness needed to execute missions oriented against the Warsaw Pact forces in Central Europe. Further, it established the framework to develop, train and fight as a one Army system with education and training opportunities to integrate the reserve component under the new Total Army Policy. The early success from the STEADFAST reorganization provided options to the senior military leaders that enabled the Round-Out Brigade and expansion to the Sixteen-division force as a viable course of action.

Organization Initiative 2: Army Expansion to the Sixteen-division Force

The final initiative in the organizational domain is examining the purpose to expand the Army to sixteen divisions. In March of 1974, General Creighton Abrams, as the new Army Chief of Staff, who in earlier testimony stated that fourteen divisions was the goal, responded to a later question about the sufficiency of the Army budget by stating that actually his "personal goal" was that the nation has an

⁴¹ Starry, 1265.

⁴² Ibid., 1267.

Army of sixteen Active Divisions plus eight Reserve Component divisions.⁴³ While the Army staff was shocked by the announcement, General Abrams and Secretary Schlesinger worked out the agreement for the addition of three divisions inside of the current force structure of 785,000 soldiers.⁴⁴ The Secretary of Defense (SECDEF) gave General Abrams the support because they both understood the need to expand the division force structure to meet the needs of allies in deterring the Soviet military expansion in central Europe as noted in the Secretary of Defense's 1974 Posture Statement to Congress.⁴⁵ Secretary Schlesinger's articulation of transforming the defense strategy from a one and half major regional contingency to a two contingency strategy, provided justification to allow General Abrams to expand the Army to build sixteen divisions inside of the 785,000-soldier force structure.⁴⁶

Seven months later, on August 13, 1974, General Abrams signed a letter to thirteen major commanders around the world stating that the Army was committed to achieve an Active Army force structure of sixteen combat-ready divisions by the end of fiscal year 1978 within the current military

⁴³ *Hearing before the Subcommittee of the Committee on Appropriations, Department of Defense Appropriations for 1975, Hearing, 93d Cong., 2d Sess., March 5, 1974, 610.*

⁴⁴ *Ibid.*, 363.

⁴⁵ James Schlesinger, "1974 Posture Statement to Congress", 7. The most demanding feature of the NATO contingency is the potential threat to the Center Region. It created two sets of risks for the Alliance. The first is the danger of a surprise attack launched by the deployed forces of the Warsaw Pact. The second is the possibility of an assault after a period of mobilization and deployment by the Warsaw Pact.

⁴⁶ *Ibid.* After analyzing the mobilized or designated threat of eighty to ninety Warsaw Pact divisions, as well as the flanks of NATO, the possible Asian contingencies, the need for sea control, and the functions of strategic mobility and National Guard and Reserve forces, the DoD has reached the conclusion that ultimately led to the request for a sixteen-division force.

manpower spaces authorized for FY1975.⁴⁷ The basis for the decision was not a carefully developed staff study, but rather an estimate of the situation, roughly analogous to a commander's use of the factors of METT (mission, enemy, terrain and weather, troops available).⁴⁸ There were many reasons for the expansion to the Sixteen-Division force, but the immediate intent was to accommodate an extremely resource-constrained environment in the drawdown after Vietnam.⁴⁹ Along with expanding the Army to meet the national security interest in Europe, General Abrams and Secretary Schlesinger agreed upon the Sixteen-Division force to drive home the justification of repairing the readiness of the reserves.⁵⁰

The implementation of the Total Force Policy that enabled the Sixteen-Division force was a shift in design because General Abrams' intent was to develop complimentary capabilities within the Army's three components rather than sustaining redundant ones. The Sixteen-Division force structure eliminated much of the redundancy and moved support force structure from the Active Component to the National Guard and Army Reserves.⁵¹ By migrating a bulk of the support units into the Reserve

⁴⁷ Sorley, *Thunderbolt*, 365. Abrams staff was thunderstruck, and this was news to them and furthermore most of them thought it was an objective that just could not be achieved. They were having a hard enough time organizing and equipping an Army of thirteen divisions, much less have the resources available to expand the Army to sixteen divisions.

⁴⁸ Creighton W. Abrams, Jr., *"The Sixteen Division Force: Anatomy of a Decision"* (Monograph, Command and General Staff College, 1975), iii.

⁴⁹ James T. Currie and Richard B. Crossland, *Twice the Citizen: A History of the United States Army Reserve, 1908-1995, 2nd Edition*. DA PAM 140-14 (Washington, DC: Office of the Chief, Army Reserve, 1997), 213.

⁵⁰ Melvin R. Laird, *Support for Guard and Reserve Forces*, Memorandum for Secretaries of the Military Departments (Washington, DC: US DOD, 1970) (Reprinted in Congressional Record, Vol. 116, 9 September 1970.)

⁵¹ Frederic Brown, *US Army in Transition* (Beverly Hills, CA: Sage Publications, 1973), 160. The projected division slice (785,000/16) for the Sixteen-Division force, was 48,000. Each of the sixteen

Force, Abrams freed up force structure to create the three additional divisions.⁵² The decision also meant that reserve readiness would be absolutely vital, because the Sixteen-Division force could not deploy without the concurrent mobilization of the Reserves.

The Sixteen-Division force structure was completed at the end of fiscal year 1977. The key operational headquarters realignment that represented the expansion to the Sixteen-Division force was the convergence of Field Army HQ's into the Corps Headquarters in Germany, such as when the 7th Army Headquarters converged with the United States Army Europe (USAREUR), handing over operational functions to the US Fifth Corps. Additionally, the Army added the 7th Infantry Division stationed at Fort Ord, California, the 24th Infantry Division, at Fort Stewart, Georgia and the 5th Infantry Division (Mechanized), from Fort Polk, Louisiana. The 5th Infantry Division and the 24th Infantry Division each had three active Army brigades and one affiliated Reserve Component brigade. The 7th Infantry Division contained two Active Army brigades and one Reserve Component Roundout-Brigade.⁵³

The decision that the United States should add Army divisions to its force structure depended on factors other than evaluations of the military balance in Europe, and possible simultaneous needs for combat forces elsewhere in the eventuality of such a conflict. The greatest consequence of the decision,

divisions was part of a complete division force equivalent (one division of 16,000 plus one initial support of 16,000, plus one sustaining increment for more than sixty days of combat equaled 16,000) of 48,000. If the Army maintained this support base inside the Active Component, there would be little left for the CONUS material and training base

⁵² Creighton Abrams, Jr., 26. The migration of the twenty-six support units to the reserve components freed up 111,823 billets, which enabled the Army to fill out the three additional divisions.

⁵³ Department of the Army Historical Summary Fiscal Year, 1975, Chapter Two (Washington, DC: Center for Military History, 1978), 5.

however, was its impact on how the Army managed its assets, particularly its people.⁵⁴ There was one study in particular, that was developed after the 1974 Posture Hearings to Congress. The 1975 Nunn Amendment supported the Army's direction by congressionally mandating DOD to replace 18,000 non-combat US military with combat soldiers. The Nunn Amendment further requested that the additional Armored Divisions established a permanent rotation of forces from the United States to Germany to ensure the highest level of readiness within Central Europe.⁵⁵

As alluded to earlier, the doctrinal manner in which to generate force structure is to define the operational environment informed by policy and strategic guidance that drives development of doctrine. The doctrine would then provide the underpinning of force structure development and refinements within in the specific design of the force. The post-Vietnam era did not allow for the sequential reform of doctrine followed by a redesign of force structure and implementation of training methods. The Army senior leaders' proactive organizational reform bought credibility, time and freedom of maneuver to leverage TRADOC and FORSCOM and the other operational headquarters reforms in establishing the framework to receive and process the doctrinal revolutions that occurred from late 1973 through the development of 1976 version of FM 100-5 to the creation of the AirLand Battle Concept in March of 1981. The reorganization of the Sixteen-Division Force mandated that every tactical and operational headquarters would be active participants in the development of doctrine, as well as be a war-fighting

⁵⁴ Creighton Abrams, Jr., 5.

⁵⁵ Leo A. Lukenas, "*An Analysis of the Budgetary Behavior of the House Appropriations Committee on Defense Spending*" (Monograph, Naval Post Graduate School, 1974), 17. The House Armed Service Committee (HASC) Report 93-1035, applauded the Army for reducing the headquarters staffing in order to transition the base force to a higher percentage of combat forces. These efforts were the initial efforts in establishing Return of Forces Germany Rotation (REFORGER).

organization. This restructuring of the operational Army, combined with the emergence of institutional organizations like TRADOC and FORSCOM, allowed the Army to pursue the doctrinal changes that would come to light in the later part of the 1973.

Doctrine Domain: Threat Evaluation

For the Army to be consistent in the development of its doctrine and weapons, it must first decide what it wants to do on the battlefield, what its potential enemy can do, and what is technically and organizationally possible. Unfortunately, due to the pressure to reorganize and the reality of troop downsizing following the Vietnam War, the organization and structural design preceded the development of doctrine. According to General Frederic Brown, “the conclusions drawn in the early 1970s were that the American capacity to repel or deter aggression anywhere in the world was limited and that, therefore, the American means to resist must be allocated to regions of the world according to a priority of US security interest.”⁵⁶ In 1973, amidst the reductions to the defense establishment and the budget, the DOD recommended the shift from a two and half war contingency to a one and half contingency, forcing US planners to shift the focus from Asia to NATO-Europe, with a small war glance at the Middle East, especially the security of Israel and the access routes to the Persian Gulf oil.⁵⁷

⁵⁶ Frederic Brown, 17. As the Chief of Armor and Cavalry from 1983 to 1986, Brown was deeply involved in rebuilding American armored forces prior to Desert Storm, particularly the application of expanding information capabilities. He established the conceptual requirements for Battlefield Management Systems now identified as “Digitization” Force XXI Battle Command, Brigade and below (FBCB2) and led Vetrionics -applying processors to training then fighting combat vehicles, alone and networked) initially in the M1A2 Abrams tank.

⁵⁷ William Depuy, *1974 letter to General Creighton Abrams, Oral History of General William Depuy* (Carlisle Barracks, USAWC, 1980), 10.

The examination of the evolution of doctrine covered the end of the Vietnam War to the creation of the AirLand Battle Concept in March of 1974. The doctrinal review will focus on two areas. The research will analyze the threat by identifying the Warsaw Pact expansion in capabilities and potential courses of action in Central Europe, and compare the similarities of terrain and numerical overmatch from the Yom-Kippur War to NATO's disposition in Central Europe during the Cold War. The final topic of the doctrinal development will review the US Army and sister service actions in integrating lessons learned, rapidly collaborating and bringing the development of doctrine to the forefront of discussions as the Army attempted to create doctrinally sound concepts to guide the Army during the rest of the post-Vietnam transformation.

The review of Soviet capabilities will examine five areas. First, in identifying the nuclear capabilities, the Soviets had proceeded with development of many strategic programs ahead of, rather than in reaction to, what the United States had done. Second, they acquired better than numerical parity with the United States in terms of strategic nuclear launchers (counting bombers as well as missiles). Third, they had continued their extensive threat to Western Europe by increased development of medium range nuclear weapons. Fourth, the Soviets began to exploit the larger throw-weight of their Inter-Continental Ballistic Missiles (ICBMS) so as to permit the eventual deployment of as many as 7,000 potentially high-accuracy Multi-Independent Targeting Reentry Vehicle (MIRVs) with large yields. Finally, they started production of the Backfire bomber, which could well evolve into an intercontinental threat.⁵⁸

⁵⁸ Schlesinger, 29. Throw-weight is a measure of the effective weight of ballistic missile payloads. It is measured in kilograms. Throw-weight equals the total weight of a missile's warheads,

For the Soviet ground and close air capabilities, the most striking issue was the improvement in Soviet Warsaw Pact forces. From an equipment view, the Soviet Union had added five tank divisions to its forces facing NATO since 1965 and had increased the number of tanks in each of its motorized rifle divisions. Also, the Soviets replaced older T-54 and T-55 tanks with T-62 tanks, and by the 1970's, had a mixture of 5,000 T-62 and T-72 tanks in Central Europe.⁵⁹ Better-armored personnel carriers and self-propelled artillery also gave Soviet divisions a more offensive capability. Most telling, however, was the gradual redeployment of Soviet and Warsaw Pact units to bases closer to the borders, implying the adoption of a pre-emptive, non-nuclear strategy.⁶⁰

From an organizational threat perspective, the US Army estimated that the Warsaw Pact could launch against the Federal Republic of Germany with very little warning, twenty-seven Soviet Divisions, and thirty-one East German, Czech and Polish Divisions. The fifty-eight divisions represented an immediate and palpable threat, and the more than 8,000 tanks further underlined their offensive potential. From the air capabilities, the Soviets tactical aircraft arsenal consisted of 2,975 aircraft, of which 2,100 were air-to-air fighters.⁶¹

reentry vehicles, self-contained dispensing mechanisms, penetration aids, and missile guidance systems—generally all components except for the launch rocket booster and launch fuel.

⁵⁹ William Depuy, 127.

⁶⁰ Herbert, 6.

⁶¹ Robert M. Citino, *Blitzkrieg to Desert Storm: The Evolution of Operational Warfare* (Lawrence: University Press of Kansas, 2004), 231. The other 800 aircraft were the MiG 25-Foxbat. From a qualitative assessment of the MiG 25, the US F-15 and F-16 fighters clearly outclassed them with their all-weather capability, increased range, payload and lower maintenance thresholds. The MiG 25, similar to other Soviet aircraft, generally lacked all-weather capability, carried smaller payloads, had shorter ranges, was tougher to fly and needed more maintenance than the US counterparts. The overall most

Modernization of Soviet air defenses also continued. The number of active Surface to Air (SA) - 2 sites was declining, but additional SA-3 low altitude and SA-5 high altitude Surface to Air Missiles Systems (SAMS) were being deployed. Similarly, new and more capable interceptor aircraft were entering the forces, but at a slower rate than older interceptors, which were, being phased out. Although the Soviet air defense system was the most formidable in the world and was still being improved, it was not likely to offer an insurmountable obstacle to the bomber force in the foreseeable future.⁶²

The final portion of the post-Vietnam threat assessment examines the Yom-Kippur War of 1973. The Arab-Israeli War of 1973 immediately stimulated the Army's doctrinal renaissance.⁶³ The terrain in the Fulda Gap is strikingly similar to that of the Golan Heights and provided a blueprint in visualizing the prospective combined arms fight in Central Europe. There are two major areas of interest. The first, and the one on which the Army was well embarked, had to do with lessons learned as they affected tactics, techniques, organization, training and equipment performance. The second had to do with information, which affected the Army's decisions on weapons systems acquisition because of the data regarding the Army's own or Soviet weapons systems effectiveness or vulnerability. The key intelligence on armored capabilities at night and increased engine power to improve mobility and maneuverability were gained

formidable tank killer on the modern battlefields was the US Army's A-10 Thunderbolt. For alternate views and sources on Soviet air capability see <https://www.cia.gov/about-cia/cia-museum/experience-the-collection/text-version/aviation.html>

⁶² Schlesinger, 48. During the Cold War, the Soviets dedicated an entire service to the interceptor mission. The Soviet Anti-Air Defense (PVO-S) consisted of crudely developed aircraft, and minimally-trained pilots. Their aircraft consisted of Su-9, Su-15 and eventually the MiG-25.

⁶³ Paul Herbert, 36.

from the fieldwork in Israel. These lessons learned immediately informed the direction of capability development at the US Army Armor Center. In particular, it guided the Armor Center's testing of thermal imagery systems, allowing the tank and ground combat vehicles to fight at night. Another relatable lesson was the need to increase the engine strength and propulsion from a diesel to a turbine engine or an engine that would provide increased mobility in Central European mud.⁶⁴

First, the Army recognized that an air superiority campaign had to precede and be successful if it were to enjoy effective close air support (CAS). Second, Army intelligence, weapons and maneuver had to play a role in the air superiority campaign in the zone forward of the line of contact. Third, close operational coordination and integrated air/ground operational planning were required. Fourth, Army forces could not count on CAS to substitute for artillery or antitank weapons at all times and places, especially important as the US military was outgunned by Warsaw Pact artillery.⁶⁵

Moreover, the review of the Arab-Israeli War of 1973 provided important lessons learned on the professional training and stabilization of quality tank crews. The most impressive performance during the war was that of the Israeli tank crews, who were able to achieve kill ratios varying from one to three in the midst of a night engagement, one to six during offensive operations in the daytime and much higher during certain defensive operations. Their tank crews were generally stabilized and in an extreme cases had been together for fourteen years, and were reputed to having fired four times as much training ammunition as had the US Army. Finally, the combination of tactics, techniques and procedures and associated force size provide the relevance to the comparisons. The NATO forces in Central Europe

⁶⁴ Starry, 1187.

⁶⁵ Depuy, 69.

would face overwhelming odds similar to that faced by the Israeli Defense Forces in 1973. The ability to integrate these lessons learned and to improve on the Israeli armored deficiencies provided a solid point of departure to examine the combined arms aspects in refining Field Manual 100-5. The ability to operationalize the Warsaw Pact capabilities through the onsite after action review of the Yom-Kippur War, the most destructive armored battle since World War II, provided the US Army and NATO partner's recent and relevant data to in refining the current doctrine. The lessons further solidified the importance for NATO to gain a decisive victory in the next war's first battle rather than a prolonged campaign.

Doctrine – FM 100-5 to Development of AirLand Battle (ALB)

In 1973, the United States had 1,700 tanks and 500 artillery pieces in Europe compared to the Warsaw Pact's fifty-eight divisions, with at least 5,000 tanks in Eastern Europe. The problem in the initial development of doctrine was how to operate outnumbered on a battlefield in which the Army was not psychologically or materially prepared to handle.⁶⁶ The Armor Commandant, Major General Don Starry's view of the potential battle facing NATO forces was that of a structured "central battle" to be fought methodically and aggressively against attacking heavily armored forces of the Warsaw Pact. The theory of the central battle would focus on firepower along the forward edge of the battle area (FEBA); thus, the Army policy during the initial developments of FM 100-5 became one of establishing an inventory of weapons, which would be adequate to survive a first strike and then mount a retaliatory strike that would punish the USSR industry and population sufficiently to make the US capability a viable

⁶⁶ Depuy, 165.

deterrent.⁶⁷ This would have to be a true combined arms fight. In addition to the improvement of tank maneuver and firepower, the infantry had to be synchronized with the armor team in increasing the effectiveness as a combined arms team. For example, the Israeli experiences suggested that mechanized infantry had to participate directly in the tank battle by using on board automatic weapons to suppress the enemy Anti-Tank Guided Missiles (ATGMs).⁶⁸

The refinements of FM 100-5 began in the early winter of 1974, as the Army senior leaders returned for the battlefields of Israel where they walked the ground of the Yom-Kippur War. Upon returning from Israel, the US Army integrated the combined arms lessons through the Infantry and Armor Centers – two single-focus institutions. The Armor and Infantry branches accomplished this through development of the Tamminen War game by LTC Dave Tamminen. The war-game manifested itself into a series of case studies called Hunfeld I and II. These case studies provided the foundational discussion at the TRADOC – FORSCOM “Oktoberfest Conference” at Fort Knox in 1974, in which General Depuy took the lessons learned from the Infantry and Armor centers and presented the analysis and initial work on FM100-5 to the operational commanders.⁶⁹

The Oktoberfest Conference from October of 1974 convinced General Depuy that the time had arrived to rewrite the tactical doctrine of the US Army. The stated agenda for the conference was to work through the combined arms lessons learned from the Yom-Kippur War with the operational BCT

⁶⁷ John Romjue, “The Evolution of Air Land Battle Concept “, *Air University Review* (May 1984), 2. Accessed at <http://www.au.af.mil/au/afri/aspj/airchronicles/aureview/1984/may-jun/romjue.html>

⁶⁸ Herbert, 36.

⁶⁹ Ibid., 40.

and Division level commanders. The not-so-hidden agenda was to sell the assembled commanders on emerging TRADOC tactical doctrine. In late October, General Depuy visited the German Army and received a briefing on the updated Panzer grenadier techniques. This further solidified his view on bringing the armor and infantry systems together.⁷⁰ In 1975, TRADOC spent much of the year assembling the lessons learned from the operational Army, visits to Germany and integrating the lessons learned from the Israelis. The initial task to write the manual fell to the Combined Arms Center (CAC), which produced multiple drafts but were not meeting the General Depuy's intent. In November of 1975, General Depuy brought Generals Don Starry, Paul Gorman and John Cushman to Fort A.P. Hill, to write the final draft.⁷¹ In January, 1976, General Depuy received minor feedback from the German Army and the 1976 version of FM 100-5 was published a few months later in July of 1976. The efforts General Depuy led in updating FM 100-5 were notable, but the 1976 version of 100-5 set in motion and lively doctrinal debate that raised important questions that needed to be answered on the viability of the Active Defense Concept.

From 1976 to 1977 General Starry was assigned to V Corps. He spent his year in corps command collaborating with senior leaders within the operational army on the refinements of the 1976 version of FM 100-5 *Operations* and expanding on the Active Defense Concept. While in command of V Corps, General Starry was able to observe eight division commanders rotate through Europe as a part of the

⁷⁰ William Depuy, interview by Brooks Kleber, Oral, Fort Knox, KY, November 10, 1974.

⁷¹ Hebert, 93. General Depuy wrote chapter one, General Gorman chapter two, Depuy and Gorman chapter three, Starry chapter four, and Starry chapters five and six. General Cushman attended the meeting as an observer, and was invited to A.P. Hill to participate in the writing, but spent most of the afternoon refuting portions of the document.

Return of Forces to Germany (REFORGER) exercises. He received grounded feedback from operational commanders that contributed to the rewrite of FM 100-5 *Operations*. General Starry thought the initial draft failed to articulate the manner in which the US Army and NATO should look at reducing the enemy's massive second-echelon forces, which, according to Soviet doctrine, would roll through the first echelon and exploit any advantages the first echelon might have gained.⁷² The feedback General Starry received from the operational commanders helped revise FM 100-5 *Operations* in developing a more maneuver and offensive character of the fight. Moreover, it helped TRADOC and the future doctrine writers in articulating the importance of not simply blunting the initial attack, but of engaging Soviet second-echelon forces as well as the use of deep attack and defining the "Extended Battlefield."⁷³

In order to integrate those lessons learned from the Yom Kippur War, the Army had to improve their interdependence with the Air Force. The final aspect of examining the Army doctrine after Vietnam is reviewing the collaboration between the Army and the Air Force that enabled the transition from FM 100-5 to AirLand Battle doctrine. The collaboration between the Army and Air Force was neither natural nor easy given the trend for service parochialism and fighting for a peace dividend following conflict. What enabled the two services to come together was the forceful personalities of the two services' strategic leaders, General Don Starry, as the new commander of TRADOC and General Bill Creech, as commander of Tactical Air Command (TAC), whose troops led the integration of the services in the development of subsequent versions of FM 100-5.

⁷² Romjue, 5.

⁷³ Herbert, 81-83.

These leaders forced the integration and interdependence between the Army and the Air Force in three areas. The first area that forged Army and Air Force integration was the development of the A-10 ground attack aircraft as the most significant indicator of the Air Force's commitment to air-ground operations.⁷⁴ This decision was done in a series of studies that examined the details of a possible Warsaw Pact invasion of Western Europe and determine the need to blunt the offensive momentum of the Soviet thrust by hitting the second echelon forces with deep attack. The latter was demonstrated in numerous joint ventures between Tactical Air Command (TAC) and TRADOC.⁷⁵ The revised version of FM 100-5 in 1975 was more than hitting the second echelon forces. The new doctrine emphasized the offensive and its four basic tenants of initiative, depth, agility and synchronization, giving twice as many pages for offense than on the defense. It further dedicated large portions of the second chapter in the revised FM 100-5 of 1982 to address the effects of US Air Force modern weapons with the second paragraph in chapter eight explicitly addressing the Army's dependence upon the Air Force:

⁷⁴ William L. Smallwood, *Warthog: Flying the A-10 in the Gulf War* (Washington: Brassey's Publishing, 1993), 11-15. The A-10's development began to center around the Soviets' all weather capability in 1970. Its first flight was in 1972 and it was introduced into the operational cycle in 1977. In response to the poor capabilities for close air support (CAS) in Vietnam, to include the Army's use of the AH-1 Cobra and the UH-1 Iroquois AC, the USAF updated their request for proposal (RFP) to include the 30mm rotary cannon. The RFP also specified an aircraft with a maximum speed of 460 MPH, take off distances of 1,200 meters and 16,000 pounds to accompany heavier pay loads and be optimized for CAS type missions.

⁷⁵ Harold Winton, "Partnership and Tension: The Army and Air Force between Vietnam and Desert Shield", *Parameters* 26, no. 1 (Carlisle Barracks, SSI, 1996), 113. The challenge was how to kill tanks with air-delivered munitions. The answer that emerged was an aircraft designed around a Gatling gun that fired 3000 to 4000 rounds of armor-piercing ammunition per minute. From the Army's point of view, production and fielding of the A-10 not only signified the Air Force's commitment to the CAS mission, but also created a corps of pilots whose whole professional being was centered around providing that support for the land domain.

Both the Army and the Air Force deliver firepower against the enemy. Both can kill a tank. Both can collect intelligence, conduct reconnaissance, provide air defense, move troops and supplies, and jam radios and radar. But neither the Army nor the Air Force can fulfill any one of those functions completely by itself. Thus, *the Army cannot win the land battle without the Air Force*.⁷⁶

The second component of integration was the 1975 establishment of an institutional arrangement, called Air Land Forces Agency (ALFA) that reflected Army-Air Force cooperation between TRADOC and TAC.⁷⁷ The ALFA successfully resolved many of the tactical and procedural issues regarding air-ground interface and airspace management. Further, ALFA laid the groundwork for articulating the attack targets in the deep fight. In September 1977, ALFA conducted tests at Fort Benning, Georgia, to evaluate techniques for the combined use of attack helicopters and A-10 aircraft against enemy ground formations in the development of the Joint Air Attack Team (JAAT) doctrine.⁷⁸ The development of JAATs provided the doctrinal employment of CAS in defeating the enemy's first and second echelon forces. It led to the Army allocating increased responsibility to the Air Force for the deep attack.

The final component of the doctrinal reform was the establishment of the Air Land Forces Interface Concept (ALFI), which enabled the corps commander to determine the targeting priorities for battlefield interdiction while allowing the Air Force to make the most effective application of their resources in the remainder of the deep fight. The reorganization executed in Project *Steadfast* led to the migration of the Corps Headquarters to assume the tactical air control functions that were previously

⁷⁶ Field Manual (FM) 100-5, *Operations* (Washington DC: Government Printing Office, 1982), 8-1.

⁷⁷ *Ibid.*, 113.

⁷⁸ Field Manual (FM) 90-21, AFTTP (I) 3-2.10, *JAAT, Multiservice Procedures for Joint Attack Team Operations* (Hampton: Government Printing Office, 1988), p. 1., ALFA would later become the Air Land Sea Analysis Center. It is a part of the J-7 of the Joint Staff and is the center that is merging the components of Air-Sea Battle and Strategic Landpower-Force 2025 and beyond.

under the Field Army Headquarters.⁷⁹ The deactivation of the Field Army Headquarters that was traditionally supported by a collocated Tactical Air Command forced the Air Force to evolve the Air Force support to Tactical Air Control Center. This was executed to ensure the proper air command functions were aligned with appropriate ground formation.⁸⁰

The task of managing the transition that enabled the Army to rebuild itself after the Vietnam War was enormous. The Army Transitioned to the All-Volunteer Force, implemented the Total Force Policy which included establishing Round-Out Reserve Component brigades to enable the Army to fill the Sixteen-Division Force and built irreversible momentum in its organizations, training methodology and doctrine that is fundamentally present thirty-five years after its inception.

Granted, these initiatives were not built in accordance with the Army Force Management Process. They were built as an interrelated and integrated set of reforms. Given the challenges with the density of initiatives that were occurring simultaneously, implementing them was challenging at the conclusion of any war in the United States history.⁸¹ What emerged instead was an institution that prepared itself almost exclusively for the mission that seemed to provide both the greatest and the most traditional challenge, large-scale theater warfare. Men such as Army Chief of Staff (CSA), General Creighton Abrams and TRADOC commanders General William E. DePuy and General Don Starry guided the institutional Army towards its renewed and tightly focused mission. The emergence of organizations

⁷⁹ Starry, 8.

⁸⁰ Harold Winton, 21.

⁸¹ Suzzette Nielson and Don Snider, *American Civil-Military Relations and the State in a New Era* (Baltimore: Johns Hopkins University Press, 2005), 3.

like FORSCOM and TRADOC signaled the degree to which “lesson learning” and historical and strategic reflection became institutionalized in the post-Vietnam era. The growth of this institutionalized learning process is still a part of the Army today.⁸²

Part III: Case Study 2: From OIF to RAF

The CJCS General Martin Dempsey states, “With our “ends” fixed and our “means” declining, it is therefore imperative that we innovate within the “ways” we defend the Nation. Successful innovation, particularly for an organization as large and complex as the US military, is difficult. It will require strong, courageous leadership within the military, as well as close collaboration with our elected leaders.

—General Martin E. Dempsey

The second case study in this monograph will review the Army’s performance in contemporary events through the same construct as examined in the post-Vietnam case study. The only difference is that the period of transformation covered in this case study is conducted during the execution of multiple wars. This case study will review the contributions of Civil-Military Relations (CMR) in shaping US Army transformation in the early part of the Twenty-first Century. Similar to the post-Vietnam War case study, the analysis in this era will review the doctrine adaptations from 2001 FM 3-0 to 2011 Army Doctrine Publication 3-0, examine the organizational initiatives of transforming the Army to a modular structure and analyze the implementation of the ARFORGEN and the cyclical readiness model to the transition of Regionally Aligned Forces.

The review of the CMR during the development of transformation will focus on the CMR during the development of Army transformation early in the Twenty-first century and how the climate within

⁸² Robert Davis, *The Challenge of Adaptation: The US Army in the Aftermath of Conflict, 1953-2000* (Fort Leavenworth: Combat Studies Institute Press, 2008), 66.

the civil-military arena affected adaptations with the force structure and modernization once the Army began implementing the rotational cycle in OIF and OEF. The civil-military discourse between Secretary of Defense Donald Rumsfeld and ACS General Eric Shinseki has been well documented since Secretary Rumsfeld entered the Pentagon in 2000. At the early juncture of Secretary Rumsfeld's arrival, there was initial optimism regarding Secretary Rumsfeld's ambitious reform agenda. Both he and General Shinseki wanted to transform the Army. Their plans just lacked the unity of effort that supported the reality of two ground wars.

While they shared a unified message with a desire to implement a medium-weight brigade structure, to the Secretary of Defense's view, the Army did not open the swath wide enough with transformation. The Army management systems, in particular the procurement systems, DA staff and Joint staffs, continued to operate in a deliberate manner of generating the Army. Upon Secretary Rumsfeld's arrival, his organizational methods continued to drive a wedge between the civilian and uniformed personnel of the Army. Despite Secretary Rumsfeld's pledge to reduce the service department headquarters, the DOD civilian personnel grew forty-eight percent during his tenure from 2001 to 2006. This growth came at a time where he announced that DOD would be reorganizing the major subordinate headquarters to provide more combat units for the wars in Iraq and Afghanistan. Part of the intended growth was to transfer the Joint Staff and service component congressional liaisons to the Office of the Secretary of Defense (OSD). This would give the Secretary more oversight and provide a forcing function to remove service-level ties to the Congress.⁸³

⁸³ Michael O'Hanlon, *Rumsfeld's Revolution at Defense* (Washington, DC: Brookings Institute Press, 2005), 34.

In the equipment modernization field, Secretary Rumsfeld clashed with Army Secretary Thomas White and General Shinseki over the Crusader, the Army's self-propelled artillery piece because it weighed forty-two tons, although at the same time he allowed the Army to transform eight BCTs to a Stryker Vehicle that deployed to Iraq weighing forty-four tons and took twenty-one days to process as combat ready once arriving in theater.⁸⁴ The secretary cancelled the Crusader in 2002 after investing \$11 billion dollars, cancelled the Comanche Helicopter in 2004 after investing \$7 billion dollars, but allowed the Army to continue investing in the Future Combat System from 2001 to 2006, spending over \$196 billion dollars during his tenure.⁸⁵

These issues do not fall solely on the secretary, but rather illustrate the senior leader disconnects when managing the ways and means. Beyond the CMR issues between the Army and multiple DoD civilians, there were notable force structure decisions that shaped the transformation of the Army in the early part of the Twenty-first Century. The second decision examines the impact of the Army's decision to maintain the funding in developing the Future Combat System (FCS) from 2002 to its eventual cancellation by Secretary Gates in 2009. The Army called FCS "the greatest technology and integration challenge ever undertaken."⁸⁶ It was intended to field not just a system, but also an entire

⁸⁴ Herspring, 392.

⁸⁵ Christopher Pernin and Eliot Axelband, *Lessons Learned from the Army's Future Combat System Program* (Santa Monica: Rand-Arroyo Center, 2010), 25.

⁸⁶ Ibid. It took the M1 Abrams six years, which included spiral development of the MBT-70 and XM803 in developing an acceptable prototype of the XM 815 from 1970 to 1976. The FCS attempted to create eighteen independent platforms off a family-of-vehicle constructs without the emerging protection technology in place to begin the prototype development. The Army was attempting to achieve this while prosecuting two wars.

brigade, a system of systems, with novel technologies integrated by means of advanced wireless networks. The FCS was built on the premise of mobile, agile formations that could embark to a theater of operation within only ninety-six hours.⁸⁷

The initial programmed cost for the FCS was \$92 billion dollars. By the time Secretary of Defense Robert Gates cancelled the program, developmental cost reached \$212 billion dollars, fielding unattended ground sensors (UGS) and the Warfighter Information Network-Tactical (WIN-T), an on-the-move satellite based tactical network for BCTs.⁸⁸ The major factors that influenced the failure of FCS was the tight timeline that was enacted thirty days into OIF and the failure to reframe the assumptions of the 2000 Operations and Organization (O&O) concept that FCS was built upon. For the FCS' first developmental increment, the Army set aside a five and half-year timetable from the program start in May of 2003 until the initial production decision in November of 2008 for eighteen major platforms.⁸⁹ The Army gave the engineers from 2002 to 2003 to accomplish the milestone "B" objective, which is to produce the engineer solutions of the hull for the entire family of vehicle systems. The life-cycle costs

⁸⁷ Pernin and Axelband, 46. Milestone B is the authorization to proceed to award, or terminate the process in the FAR. In this case, the contractors had not developed the materials to assemble the hull of the eighteen variants within the family of vehicles systems of the future combat systems. Yet, they chose to allow the contract to continue, despite contractor missing the key milestone for prototype development.

⁸⁸ Pernin and Axelband, 5.

⁸⁹ Paul Francis, & John Pendleton, *The Army's Future Combat Systems' Features, Risks, and Alternatives*, GAO report GAO-04-635T, (Washington DC: GPO, 2004), 1. In 2001, General Sullivan stated that he developed the interim force and the 2000 O&O to serve as a catalyst for the nonmaterial aspects of change: doctrine, training methodologies, leader development and improving the human domain aspects that would enable the Army to reach the FCS in a timely manner. In saying that, the technological solutions or the next conflict could either accelerate or modify the direction of the change.

projected for the initial operating capacity and facilities development was \$22 billion dollars and the cost per transitioning each BCT to an FCS structure was projected at \$5 billion dollars. The actual life cycle cost of the program, that includes facilities and research were \$149 billion dollars at the Milestone B presentation in May of 2003.⁹⁰ After subtracting the start-up and initial engineer cost, this would have paid for twenty-five FCS Brigades. In May of 2003, the Army did not have any acquisition objectives fulfilled.

The cost of cancelling major weapons systems and extending the FCS was \$250 billion. These early decisions and public disdain for the senior military leaders contributed to poor communications and climate that plagued the Army and DoD in managing the transformation during war from 2002 through 2006. This lack of feedback between Army senior leaders and Secretary Rumsfeld illustrates two of General Dempsey's components in maintaining healthy CMR as depicted in the methodology. First, the senior military leader assumes more than half of the responsibility in maintaining communication with civilian superiors to provide the best military advice. Second, the senior military leader must frame the military advice with a sense of current events and duration for which the advice is good. The early results in OEF and OIF yielded a drastic change in the nature of war; Operation Anaconda in 2002 and the abrupt transition in OIF to stability operations should have generated a wholesale review of the intended modular design of the force. The combination of Secretary Rumsfeld's transformation goals, while reorganizing the Army to fight two simultaneous wars, had enormous impacts on the future doctrine, organizations and training methodologies that would allow the Army to remain ready. Paul Davis, noted in the RAND study on military reforms, that "transformations are only sometimes

⁹⁰ Pernin and Axelband, 35.

successful, but can be distinctly counterproductive because militaries often embrace concepts too strongly and uncritically. Since mistakes are to be expected, hedging course corrections are basic ingredients in successful transformation.”⁹¹ In this case, Secretary Rumsfeld and the Army senior leaders’ focus on a capabilities-based Army overshadowed the changing nature of war from 2001 through 2005. The transformation focus continued to affect the Army leadership through 2009, which resulted in Secretary of Defense Robert Gates’ cancellation of FCS, and re-directing the DoD focus on managing the current fights in Afghanistan and Iraq. This error of omission affected the refinement of doctrine, which set the Army on a trajectory that may have been avoidable. It was imperative to get the doctrine right before implementing the remaining transformation initiatives.

Doctrine: Evolution from FM 3-0 to ADP 3-0

The first initiative to review is the doctrinal transition from Field Manual (FM) 3-0 *Operations* to Army Doctrine Publication (ADP) 3-0, *Unified Land Operations*.⁹² With respect to the Army Force Management Process, the Army developed the doctrine first, and then used the foundational concepts of 2000 Organization and Operations Concept and the capabilities-based approach in developing the organizational and training initiatives in accordance with the defense transformation of 2003. The

⁹¹ Paul Davis, *Military Transformation? Which Transformation, and What Lies Ahead*, (Santa Monica: RAND Publishing, 2008), 11.

⁹² *Field Manual (FM) 3-0 Operations*, (Washington DC: GPO, 2001), accessed on 21 March, 2015 at <http://www.tradoc.army.mil/HISTORIAN/faqs.htm>. The numbering of Army Field Manuals changed in 2001 to align with Joint Publication Series. For example, the 1993 version of FM 100-5, *Operations* transitioned in 2001 to FM 3-0. This aligned all of the Operations manuals in the three series.

analysis of the doctrinal review of the second case study will highlight the challenges of refining doctrine when the enemy changes the nature of warfare at the beginning of the transformational era.

The 2001 FM 3-0 that the Army used in the invasion of both Iraq and Afghanistan was informed by its recent history in the 1990's, in which the Army participated in a number of deployments; Haiti, Somalia, Bosnia and Kosovo were the latest reminders that the Army would continue to be involved in low intensity conflict, or Military Operations Other Than War (MOOTW) and Small Scale Contingencies (SSCs).⁹³ General Shinseki surveyed these flashpoints around the world and the mission profile that the US Army had been called to execute during the Clinton administration and formulated the following vision statement for the Army's transformation: "Soldiers on point for the nation transforming this, the most respected Army in the world, into a strategically responsive force that is dominant across the full spectrum of operations."⁹⁴ In chapter four of the 2001 version of FM 3-0, Operations, General Shinseki highlights Full Spectrum Operations (FSO) as the range of operations Army forces conduct in war and military operations other than war.⁹⁵ The doctrine of FSO recognized the inter-relationships between offense, defense and stability and operations and together these operations comprise land operations.⁹⁶

⁹³ General Eric Shinseki, *2003 FM 3-0 Operations* (Washington, DC: GPO, 2003), 1-14.

⁹⁴ Dennis Steele, "The Army Magazine Hooah Guide to Army Transformation," *Army Magazine* (Washington, DC: AUSA, 2001), accessed on 19 February, 2015 at www.ausa.org/Armyzine/Welcome.html

⁹⁵ FM 3-0 Writing Team, "Operations," in *FM 3-0 Operations*, August 2000, accessed from http://www.cgsc.Army.mil/operations/ArmyWideStaffing/Awide_chapters.htm.

⁹⁶ Michael Burke, "Doctrine for a Transforming Force," *Military Review* LXXII, no. 2 (March- April 2002): 91-97.

The second area to review within the doctrinal arena is examining the doctrinal refinement between the 2001 FM 3-0 and the 2008 FM 3-0 and review what documents informed the development of organizational and training initiatives in the second case study. This is an essential point because much of the Army transformation that was implemented occurred between 2003 through 2006, but used doctrine that was based on prewar assumptions and did not reflect the nature of war during the counterinsurgency phases of OIF and OEF. While the Army maintained the 2001 FM 3-0 through 2008, the Army used the 2000 Organization & Operations (O & O) concept in developing the Interim Brigade Combat Team (IBCT) and FCS. The 2000 O&O stated “the Army will defeat any adversary or control any situation across the full range of military operations” based on the capability to “sense, understand, decide and act faster than any adversary in any situation.” Commanders will receive “precise, fused intelligence at all levels of war” to facilitate “decision superiority and employ precision strike capabilities.”⁹⁷ The 2000 O&O was built off the two axes of the transformation road map within the revolution of military affairs (RMA) overarching strategy. The first revolution emphasized the information technologies that enabled the Army to “see first” and “act first”. The second revolution underlined the future technologies that would transform the weight, protection, speed and firepower in gaining overmatch for future adversaries.⁹⁸ The concepts or organizations were not refined despite the activities in Operation Enduring Freedom, in particular Operation Anaconda on March, 2, 2002, and the initial invasion in OIF that demonstrated the need to develop the situation through action with ground

⁹⁷ Joint Publication, (JP) 3-0, *Joint Operations Concept, Final Draft* (Norfolk: Government Printing Office, 2001), 7-9. JP 3-0 describes the role of Army Full Spectrum Operations within the Joint Force.

⁹⁸ Michael McMahon, *Adaptive Transformation Model: A Branch to the Army's Transformation Plan* (Carlisle Barracks, SSI, 2001), 199.

forces. These actions further negated the ability to use the tenants of Net-Centric Warfare and many of the Army's technological advantages, such as Blue Force Tracker, which provided platform position location of US Army friendly vehicles and unmanned aerial platforms that provided commanders constant video surveillance of towns. These systems lacked the understanding of the human dimensions and distributed nature of the conflict.

In 2005, the Army did begin to transition to the modular BCT structure, and yet it continued to use the same 2000 O&O document with which it fielded the initial SBCT in 2003. Further, in 2005 the Army brought many of the tactical and operational leaders to Fort Leavenworth to rewrite FM 3-24, Counterinsurgency. The document was released in 2006, was developed with the assistance of the United States Marine Corps and endorsed by both General David Petraeus and General James Mattis. These significant updates to Army doctrine were incredibly helpful, but they did not adjust the base document from upon which the transformed force was built.

From 2006 to 2008, the Army began to integrate lessons learned the transition in Iraq in 2003 in revising FM 3-0. The Army wanted to develop doctrine that reflected the lessons learned of leaders managing transitions at the tactical through strategic levels of war. The 2008 edition of FM 3-0, *Operations*, the first update since September 11, 2001, was a radical departure from past doctrine. It described an operational concept where commanders employed offensive, defensive and stability or civil support operations simultaneously as part of an interdependent joint force.⁹⁹ In doing so, the Army distilled the 2008 version of FM 3-0 into five simple rules. Army forces would win on the offense, initiate

⁹⁹ Field Manual 3-0, *Operations* (Washington, DC: Government Printing Office, 2008), vii.

combat on their own terms, gain and maintain the initiative, build momentum quickly and win decisively.¹⁰⁰ The 2008 version of FM 3-0 added the term understand before visualize and introduced mission command as a term to describe the preferred means of battle command.¹⁰¹

The shift from the 2008 version of FM 3-0 to change 1 that was published in 2011 further codified FSO by introducing Combined Arms Maneuver (CAM) and Wide Area Security (WAS), which emphasized the Army's capabilities to conduct both CAM and WAS, with the former necessary to gain the initiative and the latter necessary to consolidate the gains and set the conditions for stability operations, security force assistance and reconstruction. Fundamental was the understanding that the Army must be capable of executing both sets simultaneously. The FM 3-0, 2008, change one updates captured the most critical lessons of the first ten years of combat and articulated the need to be prepared to fight along the range of military operations. This set the tone for doctrinal discussion codified in Army Doctrine Publication (ADP) 3-0.

¹⁰⁰ Bill Benson, "Unified Land Operations: The Evolution of Army Doctrine for Success in the Twenty-First Century," *Military Review*, March-April Issue (April 2012): 51-57.

¹⁰¹ *FM 3-0* (2008), 5-19. In 2011, in an attempt to provide descriptive attributes for the physical dimensions of the battlefield, the authors of Unified Land Operations (ULO) considered the history and evolution of the operational framework in Army doctrine as they developed the foundation for Army Doctrine Publication 3-0 that replaced the 2008 version of FM 3-0. As a result, ULO reintroduces many terms rescinded in 2008 and returns the AirLand Battle effort "supporting effort to the lexicon. In unified land operations, *deep close security* replaces *deep close rear*. This change reflects the reality and importance of the domains of cyber/electronic warfare, space, and other threats not confined to a rear area. The term "rear area" may still have utility when describing the arrangement of friendly forces but is not included as part of the operational framework.

The final doctrinal shift to review is the transition to ADP 3-0, which further defined the need to execute operations with the simultaneity needed to win future wars while leveraging all elements of national power, especially the multinational efforts of the United States allies and coalition partners.¹⁰² Further developments of ADP 3-0 introduced the term decisive action, which replaced the term FSO as the concept of continuous, simultaneous offense, defense, stability, or defense support of civil authorities.¹⁰³ The central idea of Unified Land Operations (ULO) is that Army units seize, retain and exploit the initiative to gain and maintain a position of relative advantage in sustained land operations to create conditions for favorable conflict resolution.¹⁰⁴ Unified Land Operations applies to all military operations, including offensive, defensive and stability or defense support of civil authorities. This unifying principle connects the various tasks Army forces may perform and added the founding principles of flexibility, integration, lethality, adaptability, depth and synchronization. It incorporated the principle that operational art is the connection between strategic objectives and tactical actions and provided a common construct for organizing military operations.¹⁰⁵

The review of Army doctrine examined several transitions throughout the most recent transformation. After the initial operations into Afghanistan and Iraq, the Army maintained the

¹⁰² Benson, 58.

¹⁰³ Army Doctrine Reference Publication (ADRP) 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, 2012), 5. Additional changes in ADRP 3-0 from the now obsolete 2011 FM 3-0, includes a discussion of the range of military operations replacing the spectrum of conflict as well as a discussion of information collection replacing intelligence, reconnaissance, and surveillance (known as ISR). These changes in ADRP 3-0 now had better align Army doctrine with the joint discussion of the principles of joint operations.

¹⁰⁴ *Ibid.*, ix.

¹⁰⁵ *Ibid.*, 2.

2001 version of FM 3-0 for seven years, despite being developed with prewar assumptions that represented a Cold War narrative. Instead, the Army drove major transformation tasks using an operations and organizations document that had not been codified into a formal doctrinal manual. The impact of developing formations without an updated doctrinal manual was felt in the multiple adjustments to force structure, major revisions to headquarters and training strategies.

Organizational Domain: Understanding Modularity

The second initiative examines the Army transition to modularity. The review will examine the doctrinal, personnel and organizational factors associated with the implementation of the modular force structure. In 2003, the US Army began implementing a set of ambitious changes to its force structure to address the challenges of waging war and conducting extended stabilization operations. It executed this reform while engaged in multiple wars. One of the changes involved transforming the Army from its traditional, division-based force into a brigade-based force, a concept that has come to be known as ‘modularity.’ TRADOC Pamphlet 525-5 defined modularity as “a force design methodology” that established a means to provide interchangeable, expandable and tailorable force elements.¹⁰⁶ Modularity is the transformation of the Army from its traditional, division-based force into a brigade-centric force, by moving manpower into the tactical part of the Army and reducing the size of the institutional Army—the sustaining base—to an unprecedented low percentage of the total Army.¹⁰⁷

¹⁰⁶ Stuart Johnson, John E. Peters, and Karin Kitchens, *A Review of the Army’s Modular Force Structure* (Santa Monica: National Defense Research Institute, 2012), iii.

¹⁰⁷ Johnson, Peters, and Kitchens, 21. Modularity was the product of three Army Chiefs of Staff. General Sullivan took many of the first steps toward transforming the Army in the early 1990s. General Dennis J. Reimer continued the path forged by General Sullivan but expanded the Force XXI concept by

The migration to a modular force postured the Army to employ its formations with an appropriate size of force without deploying an entire division-size support structure. Second, the transformation to modular-BCT was needed in response to the repeated stability operations and MOOTW that the Army executed in Somalia, Haiti, Bosnia and Kosovo. Finally, the agility and scalability led to economic advantages that enabled the Army to employ a more accessible and affordable formation to meet the national security objectives.

The first component to review is the doctrinal framework upon which modularity was built. The modular force was built on the backbone of its technical means in a movement known as “defense transformation.” It was a belief that surveillance, communications and information technologies would deliver dominant battle-space knowledge’ and permit US forces to achieve ‘full spectrum dominance’ against any opponent mainly through the employment of precision strike capabilities.¹⁰⁸ This premise was the foundation for the operations and organizations concept that drove FCS and the modular structure. Modularity did improve the Army’s interoperability issues. It reduced the Army’s BCT types from seventeen to three.¹⁰⁹ It further moved combat support, combat service support capabilities, like

creating the “Army After Next”. Following the path of General Reimer, General Shinseki contributed the advancing narrative but believed it should occur more rapidly. The intent was to create an Army that was “more deployable, more agile, more versatile, more lethal, more survivable, and more sustainable.

¹⁰⁸ LTG H.R. McMaster, “On War: Lessons to be Learned,” *Survival Magazine*, Vol 50, no 1 (London: Mortimer House Publishing, 2008), 19-21.

¹⁰⁹ Johnson, Peters and Kitchens, 20. The seventeen types of BCTs were; Tank Brigades, Mechanized Infantry Brigades, Heavy Armored Cavalry Regiments, Light Cavalry Regiment, Air Assault Brigade, Divisional Airborne Brigade, Separate Infantry Brigade, Separate Armored Brigade, Separate Airborne Brigade, Light Infantry Brigade, Motorized Infantry Brigade, multi-functional Brigade in Korea- contained two light battalions, mechanized infantry battalion, and an air assault battalion and Arctic

Heavy Equipment Transportation (HET) companies, vertical engineer companies, and direct support maintenance companies from the reserve component back into Brigade Support Battalions (BSB) of the BCT formations. The move to modularity provided the Army with a greater number of smaller, very capable force packages, making it easier to sustain the protracted operations in Iraq and Afghanistan through the creation of modular support structures within the BCT.¹¹⁰

There were some challenges from the doctrinal premise upon which the modular BCT was built. In March, 2006, multiple division level commanders commented on the shortcomings that Modular BCTs brought when employed in the CENTCOM area of operations. The loss of a maneuver battalion and reliance on an undermanned Reconnaissance Squadron caused many commanders to build ad-hoc units to compensate for the lightly manned Cavalry formation.¹¹¹ General Schoomaker and his staff contended that a reconnaissance squadron, though not well protected or heavily manned, could use state-of-the-art sensors, and sometimes unmanned aircraft, to detect enemy locations and share intelligence with the rest of the BCT using advanced communications technologies.¹¹² A recent US Army Reconnaissance Commander stated that use of the technology could work to compensate in a rural Iraq

Infantry Brigades that served in Alaska. The Alaska based units served in a combination of airborne, and mechanized structures that used the M973-Small Unit support Vehicle-SUSV. The conversion to the Armored, Infantry and Stryker BCT simplified the management of the personnel, training and leader development requirements needed to generate readiness within the three BCT Cohorts.

¹¹⁰ Ibid.

¹¹¹ Elaine Grossman, "Critique of Army Redesign Proves Highly Contentious Inside the Service," *Insider Magazine*, no 3 (January 2006), 11, accessed March 1, 2015, http://www.dnipogo.org/grossman/Army_redesign.htm.

¹¹² Ibid.

or Afghanistan Theater. But inside a population centric area, the lack of soldiers to develop the situation through action will continue to be a major deficiency for the modular BCTs.¹¹³

The second area of analysis with transitioning to the Modular BCT is realizing the instant personnel demand that modular units placed on the Army.¹¹⁴ Figures 2 and 3 illustrate the growth of field grade officer positions as a result of transitioning to Modular BCTs through Corps Headquarters.

Year	Number of Units (AC/National Guard/Army Reserve)				
	Infantry Battalions	Mechanized Battalions	Cavalry Squadrons	Sustainment Brigades	Support Battalions
2002	101 (51/50/0)	55 (21/34/0)	21 (13/8/0)	28 (18/8/2)	145
2008	122 (68/54/0)	55 (38/17/0)	79 (46/33/0)	32 (14/9/9)	203

Table 2. Force Structure Changes TAA 2008

Source: HQDA, G-8, "Modular Support Analysis, TAA, POM 2006-2011 White Paper

¹¹³ Elaine Grossman, "Critique of Army Redesign Proves Highly Contentious Inside the Service, 12.

¹¹⁴ ARSTRUC Memo 12-17, December 15, 2009; ARSTRUC Addendum 1015, version 0902, April 28, 2009.

Personnel	I Corps		III Corps		XVIII Corps	
	Premodular	Modular	Premodular	Modular	Premodular	Modular
Enlisted	207	485	207	531	205	502
Senior Enlisted (E-7 or Higher)	43	154	43	154	45	153
Officer	119	241	119	243	119	242
Company Grade	17	45	17	53	17	46
Field Grade	99	192	99	186	99	192
Warrant	1	51	1	51	1	51
Total	327	777	327	825	325	795

Table 3. Corps HQ Changes in Modularity

Source: G8, DA, Force Management System, FMS WEB, May, 2010

To illustrate the immediate growth to the Army in 2005, this monograph examined the growth of company and field grade officer billets within the modular BCTs, division and corps. The examination of growth does not include the sustainment BCTs and other multi-functional brigades, which comprise an additional ninety-five BCTs in the Army. The transition to a modular BCT in May of 2005 placed an immediate demand for 1,750 field grade officers' billets on the institutional Army, resulting in an additional requirement of 700 captains and 200 majors in forty brigade combat teams, and 800 majors billets at the division and corps headquarters.¹¹⁵

The third point of discussion with modularity was its lack of application to the operational and strategic commands within the Army. Although brigade staffs grew commensurate to their new roles and responsibilities, division, corps and army headquarters staffs did not correspondingly decrease; but

¹¹⁵ G8, DA, Force Management System, FMS WEB, May, 2010.

instead, also increased. Repeatedly, senior leaders have acknowledged the headquarters from division through department level are entirely too big. In 2004, CSA, General Schoomaker addressed the headquarters sizing issue when he described to Congress how the Department of the Army was going to flatten and reduce their structure in order to distribute the responsibilities of running the BCTs to the appropriate leaders. General Schoomaker stated:

The transformation of our headquarters will be even more dramatic than that of our modular units, for we will sever the routine association between headquarters and the units they control. At division level and higher, headquarters will surrender organic subordinate formations, becoming themselves streamlined modular organizations capable of commanding and controlling any combination of capabilities—Army, joint, or coalition.¹¹⁶

The current composition of the operational and strategic headquarters are inundated with redundancy and requires augmentation for initial operating capacity with overseas contingency funds. These commands are layered under service component commands and field-army level commands that support global and combatant commands. To illustrate the growth from the post-Vietnam Army to the current force structure, Table 4 portrays the 1981 staff breakdown for Joint Staff, OSD, Unified and Service Commands. Within the three services in 1981, the combined strength is approximately 9,000. When the civilians are added into the structure that number increases to 14,000 total personnel in the Pentagon.

Activity	0-3	0-4	0-5	0-6	GEN/ FLAG	Total
OSD	19	68	176	156	19	438
OJCS	2	70	368	211	31	682
JDA	5	26	30	9	4	74

¹¹⁶ Les Brownlee, and General Peter J. Schoomaker, “Serving a Nation at War: A Campaign Quality Army with Joint Expeditionary Capabilities,” *Parameters*, Summer 2004 (July 2004):14-15.

Unified Cmd	236	730	850	291	47	2154
NATO Cmd	162	405	478	209	45	1299
Defense Agency	545	986	882	380	35	2828
Total	1128	2725	3285	1603	210	8951
Army						3317
Navy/USMC						2400
Air Force						3234
	Total in Pentagon					17,902

Table 4. 1981 DoD Breakdown of Staff Billets in the Pentagon

Source: Robert Art, *Reorganizing America's Defense: Leadership in War and Peace* (Washington, DC: Pergamon-Brassey Publishing, 1985), p. 289.

Today, the Army staff is 6,200 billets in military spaces with 2,000 additional civilian spaces. The Joint Staff and OSD are nearly 9,000 personnel and CENTCOM is at 6,940 billets. In the Pentagon badging office, they count an average of 29,000 badged personnel enter through the building on a daily basis. That is a two hundred percent growth in the twenty-five years, with an Army that is half the size of its 1981 end strength.¹¹⁷ Overall, staff sizes of major US military commands grew by fifteen percent from 2010 to 2012, despite then-Defense Secretary Robert Gates' call to reduce staff sizes as a way of cutting redundancy and saving money.¹¹⁸

¹¹⁷ GAO Report 14-440, *Guidance Needed to Transition US Central Command's Costs to the Base Budget* (Washington, DC: GAO, June 2014), 18.

¹¹⁸ Marcus Weisgerber, "Pentagon, Regional Staffs Growing Despite Orders to Trim Personnel," *Defense News* (June, 2013). The rapidly growing component commands are redundant and from a GCC standpoint, provide an opportunity to merge the component commands to a forward deployed Joint Task Force (JTF). The ability to merge GCC's into a purely joint formation would greatly reduce the

This is an Army issue that extends into the service component commands of the Geographic Combatant Commands (GCCs). Even though the combatant commands rely on the service component commands' personnel to support their missions, the GCCs do not have oversight or visibility into the service component commands' authorized manpower. As a result, since the employment of modularity in 2005, the service component commands in CENTCOM grew from 2,245 positions to 7,795 authorized positions, which are double the authorized positions at the GCCs, and four times, the size of GCCs since 2004.¹¹⁹ Thirty-four percent of the growth came from Army Central Command alone.¹²⁰ The growth within the OSD, Joint Staff and GCC's during the past five years is fifty-two percent in military billets, and an additional twenty-two percent when the temporary and permanent civilian spaces are factored in, equaling seventy-four percent growth at time of the SECDEF mandated reductions. As General Schoomaker indicated in his 2004 speech, the distribution of responsibility should have been powered down to the edge along with the increased capabilities of the BCT staff. The Army should have shown corresponding reductions in the division and corps headquarters as the traditional functions of those staffs were migrated to the lower levels.

overhead required for multiple staffs and could reduce the footprint overseas and provide a central location for the JTF to project from.

¹¹⁹ John Pendleton, *Guidance Needed to Transition US Central Command's Cost to the Base Budget*, GAO Report 14-440 (Washington DC: GPO, 2014), 27.

¹²⁰ Ibid., The 2010 through 2012 staff growth equaled ninety-nine percent. The break down is: OSD: 2,433; 2,665; +232; 9.5%, Joint Staff: 1,286; 4,244; +2958; 230%, AFRICOM: 1,661; 1,919; +285; 15.5%, CENTCOM: 2,686; 3,207; +521; 19.4%, EUCOM: 2,494; 2,286; -208; 8.3%, NORTHCOM: 1,585; 1,687; +102; 6.4%, PACOM: 3,825; 4,147; +322; 8.4%, SOUTHCOM: 1,795; 1,797; +2; 0.1%. CENTCOM alone had 4,375 civilian billets filled in the GCC headquarters and distributed out in the service component commands.

The final point in examining modularity addresses the cost of adapting the modular BCTs throughout the past ten years. The expansion to modular BCTs began in 2004 and was completed in 2013. Four months after completing the forty-fifth modular brigade the Army announced that it was executing a second round of transformation restructuring that would add the third maneuver element, but deactivate thirteen of the forty-five brigades to reconfigure the Army back to a thirty-two BCT force. The Army returned to the pre-modularity task organization minus the addition of organic BCT level Cavalry Squadron and Brigade Support Battalion.

In 2005, the initial cost to transform to the modular BCT was projected to cost \$20 billion dollars. In 2009, that number reached ninety-one billion and by 2014 and the cost to roll back to thirty-two BCTs cost the Army an additional \$210 billion dollars.¹²¹ Overall, the modular formation is an improved capability and maintaining the design of the modular BCT from the net-centric O&O doctrine greatly contributed to the oscillation of force that gave rise to the \$200 billion price tag. The adaptations to the doctrine and organizational domains continue to occur as the Army adjusts to the fiscal uncertainties associated with sequestration.¹²² Building balanced BCTs that require less ad-hoc augmentation will simplify the readiness tasks. The final review of the case two initiatives is the

¹²¹ GAO Report, *2014 Army Modular Force Structure Report: Annual Report Generally Met Requirements, but Challenges in Estimating Costs and Assessing Capability Remains* (Washington, DC: Government Accounting Office, 2014), 22.

¹²² C. Stephen Redhead, "Budget Control Act: (BCA) Potential Impact of Sequestration on Health Reform Spending", *Congressional Research Service* (Washington DC: GPO, 2013), 2. The FY2013 sequestration is the first of a series of automatic spending reductions under the BCA, as amended by Congress, that are required each year through FY2021. These annual spending reductions were triggered by the failure of the Joint Select Committee on Deficit Reduction to propose, and Congress and the President to enact, legislation to reduce the deficit by an amount greater than \$1.2 trillion over the period FY2012-FY202.

refinement of the interrelated program that delivers the modular force through use of the ARFORGEN process.

Training Domain: ARFORGEN

The third and final initiative examined in this case study is the ARFORGEN process. The review of the ARFORGEN process will examine its origins in 2005, the personnel cost over the past eight years, and examine the refinements of ARFORGEN as it transitioned from the Progressive model of ARFORGEN to the Combined Model of Regionally Aligned Forces (RAF). The Army replaced the Cold War-era linear model based on tiered readiness and sequential deployment with a Twenty-first Century rotational model based on progressive readiness and capable of cyclical deployments.¹²³ The linear model was built upon General Abrams' Sixteen-division Army and the shift to generating combat power at the operational levels of war and through the development of the advanced weapons system technology, trained and developed leaders and units that can fight outnumbered and win.

¹²³ Charles C. Campbell, "Cementing Change: Institutionalizing ARFORGEN", *Army Magazine*, no 10 (October 2010):50.

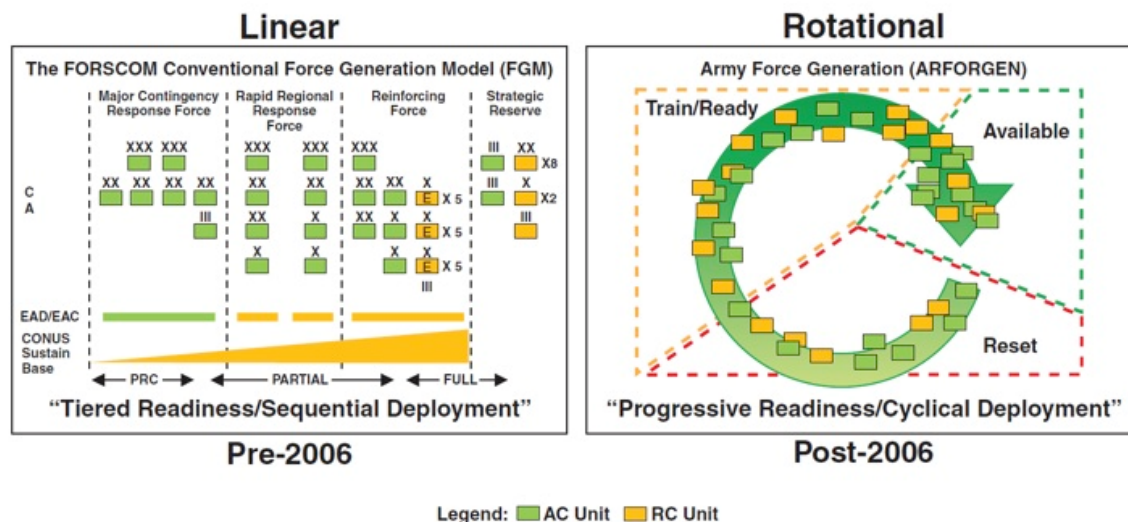


Figure 1. Army Linear and Cyclical Force Generation Models

Source: Charles C. Campbell, “Cementing Change: Institutionalizing ARFORGEN”, *Army Magazine*, no 10 (October 2010): 49.

During the initial rotations of OIF, the Army had to find a way to generate forces due to the global demand for land forces exceeding the available supply. To meet the demands of protracted conflict in those theaters, the Army adopted a rotational deployment strategy based on the ARFORGEN model.¹²⁴ Additionally, in 2005 the Secretary of Defense departed from the Joint Operations Planning and Execution System (JOPES) depicted in the linear model in Figure one to a progressive readiness model that is managed through the Global Force Management Allocation Process.¹²⁵ After years of

¹²⁴ Christopher Pernin, Ed Wu, Aaron Martin, and Gregory Midgette, *Efficiencies from Applying a Rotational Equipping Strategy* (Santa Monica, CA: Rand-Arroyo Center), iii.

¹²⁵ JP 5-03.1, *Joint Operation Planning and Execution System, Volume I, Planning Policies and Procedures* (Washington, DC: Office of the CJCS, 1993), 1. The JOPES system, the Army’s legacy system since 1993, is optimized for sequential deployment as part of a one flow of forces overseas.

sourcing units for global deployment in an improvisational manner, the Joint Staff adopted a system that is now formalized as the Global Forces Management Process (GFM).¹²⁶ The GFM enables the Secretary of Defense to make more proactive, risk-informed force management decisions by integrating the three processes of assignment, apportionment and allocation.

The ARFORGEN process is the Army's core process for force generation, executed with supporting-to-supported relationships, which cycled units through three force pools of Reset, Train and Ready and Available.¹²⁷ *The Reset Force Pool* began with the establishment of the unit's return date or the transition from the *Available Force Pool*. A redeploying unit established a return date when fifty-one percent of the unit's personnel returned to their home station. Units in the Reset Force Pool executed individual training and post deployment certification tasks.¹²⁸ *The Train / Ready Pool* units increase training readiness and capabilities given their resource availability to meet established readiness goals. Units training focused on collective training that culminated in an externally evaluated, combat training center like rotation. The duration of the Train and Ready phase last from twelve to twenty-four months. *Available Force Pool* units are at the highest state of training and readiness capability and the first to be considered for sourcing operational requirements.¹²⁹

¹²⁶ Charles C. Campbell, "Cementing Change: Institutionalizing ARFORGEN," *Army Magazine* (Washington DC: AUSA Printing Office, 2010), 50. Essentially, the Global Force Management Process is a reaction to OEF/OIF demands of forces/capabilities.

¹²⁷ Army Regulation, 525-29, *Army Force Generation* (Washington, DC: Government Printing Office, 2011), 1.

¹²⁸ Ibid.

¹²⁹ Ibid.

From this progressive model, the Army was able to meet the CENTCOM GCC's needs in producing continuous, certified formations in a cyclical manner from its inception in 2005 through 2012. There were costs associated with the transition to the cyclical model. Due to the transitioning of key leaders from ready to reset pools, the Army, in particular, the Human Resource Command was charged with dynamically tracking individuals that were traditionally on a four-year assignment cycle to sometimes two and three year cycles. In 2007, the Army reset approximately 365 active duty units, 182 National Guard units and 291 US Army Reserve units. The complexity of aligning the key personnel to the certification-training event represented real challenges. In 2008, forty-two percent of the majors that served in battalion-size formations did not attend the mission rehearsal exercise, the certifying event, prior to deploying to Iraq or Afghanistan.¹³⁰

The second challenge is controlling the cost to maintain BCTs in the ARFORGEN cycle. According to the Army Chief of Staff in a September 2010 brief to the Pre-Command Course at Fort Leavenworth, Kansas, the US Army paid contractors and national depots \$450 million to reset one Armored Brigade Combat Team (ABCT).¹³¹ Reset in this context is defined as refurbishing major end items of the modified tables of equipment (MTOE) equipment, reintegration training and the new equipment training

¹³⁰ Ann Roosevelt, "ARFORGEN Successfully Meets Surge Requirements, General Says," *Defense Daily*, Vol 240, no. 20 (October 29, 2008), accessed on 14 December, 2015 at <http://search.proquest.com/docview/234052937>. The CG FORSCOM stated, though ARFORGEN provided a vehicle to meet the GCC needs during the surge, there are institutional Army refinements needed in order to deliver key personnel from training and education to the unit in a timely manner to participate in the MRX.

¹³¹ General George W. Casey, "State of the Army" (Leader Development Presentation at Pre-Command Course 10-08, Fort Leavenworth, 2010).

programs for the various platforms and organizational skills. In particular, a division with four Armored Brigade Combat Teams (ABCTs) spent \$1.8 billion for resetting a division in a three-year ARFORGEN cycle, compared to the pre-Global War on Terror (GWOT) cost of \$315 million dollars in the same three-year cycle.¹³² A majority of the reset cost was attributed to the national reset of major end items, such as tanks, troop carriers, helicopters, etc. A major cause for the unnecessary induction of equipment was the use of the automated reset induction (ARI) of equipment in the BCT. The ARI unnecessarily inducted multiple lines of equipment that did not warrant the wear and tear of miles or hours of operation into a national reset.¹³³

In 2012, FORSCOM adjusted the initial designs of the ARFORGEN Progressive Model to build readiness based on requested needs of the GCCs. The Combined Model is more balanced in providing access to all of the GCCs in light of the return of forces from the CENTCOM area of operations.¹³⁴ This

¹³² Janet A. St Laurent, *Testimony before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, House of Representatives* (Washington, DC, April, 2010) assessed on 1 January 2014 from <http://www.gao.gov/assets/120/119618.html>. OPTEMPO is the rate of unit activity. Tempos affect the dynamic relationship of budget, readiness, and force structure decisions and bear attention in these areas: readiness, quality of life, modernization, personnel, and retention. The standard OPTEMPO for an ABCT is 685 miles.

¹³³ Department of the Army, G8-Force Management Update Brief, *Automated Reset Management Tool* (ARMT). Accessed 25 January at www.hqda.army.mil/automated%20RESET%20management. The FRAGO further states, “Units must select twenty five percent or more of each ARI item LIN to return to CONUS Depots. This system enabled national reset of an excessive amount of equipment that was not utilized in theater. An example is the Bradley Fighting Vehicles and M88 recovery vehicles. Both platforms rarely left forward operating bases during the later portions of OIF due to the focus on rebuilding infrastructure, and limited mobility within urban areas.”

¹³⁴ Class notes RAF Presentation to the Advanced Strategic Leadership Studies Program (ASLSP) on December 11, 2014 at Fort Bragg, NC. Slides are available upon request.

enhanced version of ARFORGEN represents the fiscal realities that targets specified Army units for the progressive readiness model. It anticipated changes to the operational environment, enabled targeted units to return to decisive action and retain asymmetric capabilities while training others to execute security force assistance missions. It supported the implementation of the Regional Aligned Force (RAF) construct and enabled the Army to remain globally responsive in an affordable manner.¹³⁵

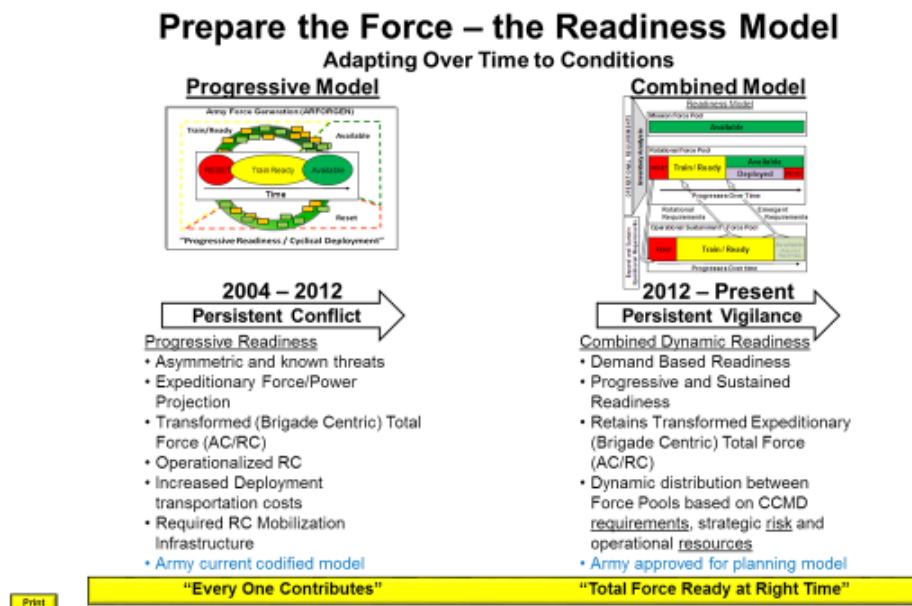


Figure 2. Transition to the Combined Readiness Model

Source: http://www.marad.dot.gov/documents/NPRN_WS_2009_Workshop_1_FSLDC_10-1_ARFORGEN_Overview.pdf, accessed March, 1, 2015.

¹³⁵ Ibid.

In this regard, regional alignment is a qualitative improvement to the Army's ability to rebalance the force in order to provide high quality, versatile and responsive Army support to all Combatant Commands in support of all their requirements.¹³⁶ In RAF, the future Army forces would prevent conflict, shape security environments and win wars while operating as part of our Joint Force and working with multiple partners.¹³⁷ At its core, RAF is the CSA's initiative for aligning Army capabilities to an expanded set of requirements for the Joint Force post-2014. As General Raymond Odierno stated at the Association of United States Army Eisenhower Dinner in October 2012, the Army will leverage the mission command capability by "organizing the missions" around highly-trained squads and platoons-the foundation for the company, battalion and brigade combat teams-for specific mission sets and regional conditions.¹³⁸ Regionally Aligned Forces is the new term to describe the Total Army effort.¹³⁹ Within the Operational Army, specifically GCCs, RAF offered the United States both influence in and access to host nations through enhanced trust and understanding facilitated by enduring engagements. The RAF model further expanded on previous versions of the Army's Roundout system by reestablishing

¹³⁶ Major Dave Derrick and Major Holly Harris, *Department of the Army-SSO RAF Information Paper* (Washington, DC: DA Printing Office, 2013), 3.

¹³⁷ Raymond Odierno, TRADOC PAM 525-3-1. *The US Army Operating Concept: Win in a Complex World* (Fort Eustis: TRADOC Printing Office, 2014), 1. The AOC guided future force development by identifying first order capabilities that the Army needed to support US policy objectives. It provided the intellectual foundation and framework for learning and for applying what we learn to future force development under Force 2025 and beyond.

¹³⁸ Kim Field, James Learmont, and Jason Charland, "Regionally Aligned Forces: Business Not as Usual," *Parameters* 43, no. 3 (2013): 53, accessed on February 11, 2015, <http://search.proquest.com/docview/1462044522?accountid=28992>

¹³⁹ Class notes RAF Presentation to the Advanced Strategic Leadership Studies Program (ASLSP) on December 11, 2014 at Fort Bragg, NC. Slides are available upon request.

formalized partnerships that align active duty brigades with National Guard partners. At the tactical level, the First Brigade, Third Infantry Division is partnered with the 278th ABCT from the Tennessee National Guard. This partnership enables the National Guard BCTs to leverage active duty training events, such as individual certification, mission command exercises and key leader development opportunities. It further connects the Army within its components and forges relationships at home station vice waiting for the units to aggregate together.¹⁴⁰

The 2012 Defense Guidance clearly implied that building readiness in the original cyclical model of ARFORGEN was no longer suitable, either operationally or fiscally.¹⁴¹ The emerging requirements are compelling the Army toward superior agility, expanded expeditionary capabilities, precise lethality and cross-cultural awareness, as well as a better ability to integrate other agencies and partner with host nation forces. In the end, the Army must be prepared to respond to the requirements of the combatant commanders. Embracing these principles will help transition the Army from an Army of Execution to an Army of Preparation in supporting the execution of Regionally Aligned Forces.¹⁴²

Part IV: Analysis of the Case Studies

The monograph aims in each case study were to examine the CMR issues as it affects transformation, review the Army's implementation of major doctrinal, organization and training initiatives, determine if the initiatives that were reformed were sustainable and examine the Army's

¹⁴⁰ FORSCOM to ASLSP on December 11, 2014. Slides are available upon request.

¹⁴¹ Kim Field, James Learmont, and Jason Charland, 55. In 2011, the price to produce readiness through the ARFORGEN process and use of national reset became infeasible. This was a result of the Army improved awareness of the \$ 350 million dollar cost of national reset for each BCT in an ARFORGEN cycle.

¹⁴² Field, Learmont and Charland, 59.

degree of institutional agility and adaptability in managing the transformation to deliver the best Army that the nation can afford. The answer to the aims may help future leadership teams to establish unity of effort in deciding what must be done to generate the most affordable Army while developing a strategy that incorporates institutional agility to react to changes on the ground. The civil-military relations during the post-Vietnam era followed the “Madisonian” approach to leading change that provided the Army the trust and freedom to redesign the force on its own accord. The collaboration was made possible by the efforts of General Abrams, General Westmoreland and Secretary of Defense Martin Laird. During the final years of the Vietnam War, General Westmoreland led the Army through many of the organizational structure reforms that laid the groundwork for General Abrams and the Army to maintain momentum at the conclusion of the war. The All-Volunteer Force study “*Provide*” began as early as 1969, and the initial guidance for the *Steadfast* reorganization began at the 1971 four-star conference.¹⁴³ The fact that the Army willingly restructured strategic and department level headquarters gave the Army increased credibility and latitude to implement further refinements of the Total Force Policy such as the Round-Out Brigade concept and the Sixteen-Division Force. The combination of the institutional agility of the Army from 1969 to 1973, and the exceptional relationships that senior military leaders had with the Defense Secretaries, illustrated the ideal collaborative civil-military relationship.

Granted, General Abrams’ design of the Sixteen-Division force, which involved integrating Round-Out Brigades and support functions from the reserve components, was a forcing function for the Army to have access of the reserve components for future operations. This could be interpreted as a

¹⁴³ Moenk, 28.

senior military leader shaping policy. The fact is that General Abrams was not alone in championing the concept as two different Secretaries of Defense supported the Army by enacting the concept in 1971 and designating it as a formal policy in the 1973 Posture Statement to Congress.

During this era, the Army displayed an enormous amount of adaptability and operated with a sense of urgency needed to forge the transformation. One of the first examples of institutional agility was execution of the Steadfast reorganization, and the establishment of TRADOC. The Department of Army Staff reductions alone eliminated nearly 4,900 positions, which provided TRADOC and FORSCOM the 3,917 positions needed to establish the new command structures. Further, the convergence of 7th Army in Europe with 5th Corps and the redesignation of many support functions to the reserve components realigned the Active Army demographics and allowed the Army to expand to the Sixteen-Division Force.

With respect to the Army's formalized force development process, the Army transformation after the Vietnam War reformed the organization, training and personnel functions prior to the development of the doctrine. It was completed in that order out of necessity and due to lessons learned from events of the 1973 Arab-Israel War. TRADOC had in been in existence for nearly six months by the time the Yom Kippur War occurred in October of 1973. The war stimulated the Army's doctrinal renaissance in early 1974 and validated the increased role that TRADOC would assume in crafting the direction of the Army.¹⁴⁴

¹⁴⁴ Herbert, 39-41. General Depuy was attempting to do two things. He first had to assist his TRADOC subordinates in gaining the institutional experiences and advocate consideration of the right lessons learned from Vietnam at a time when the Army was consciously trying to avoid the perceived

By January of 1974, Generals Depuy, Gorman and Starry returned from the post-battle terrain walk from Israel and immediately began socializing and inculcating the new doctrine with the Institutional and Operational Army. In May of 1974, General Depuy and his subordinate commandants and combat developers travelled to each division headquarters to begin the dialogue with division commander. The TRADOC travel team provided lessons learned from the armor and infantry commandants, conducted a series of seminars and issued training circulars and Army Training and Evaluation Procedures (ARTEP) manuals describing the tactics and techniques and in 1975, General Starry, Gorman and Depuy personally drafted FM 100-5 at Fort A.P. Hill. The Operational Army generally welcomed the 1976 manual for its clarity and stress on the tactical ramifications of the new lethality of modern weapons, but also pushed for a more offensive approach that provided maneuver space. The second refinement of 100-5 in the post- Vietnam era began immediately.

TRADOC and General Starry were instrumental in developing the Extended Battlefield, and future revisions of FM 100-5, which resulted in the AirLand Battle Concept being adopted in 1982. TRADOC, in conjunction with the Air Force, displayed a high degree of institutional agility with the establishment of the Air-Land Force Agency (ALFA). Through ALFA the Army and Air Force executed multiple live-fire training missions to improve TTPs and assist in the modernization of service equipment. The results from Army-Air Force collaboration yielded the employment of the A-10 Warhog as the close air support weapon of choice and improved collaboration in training JAAT missions that assisted the Army in the development of the extended battlefield which contributed to the eventual

bugaboo and gird itself to fight and win the next one, a war heralded by the events in the Sinai and on the Golan in October of 1973.

design of the AirLand Battle Concept.¹⁴⁵ The doctrine, organizations and training methods endured and allowed the Army to reach new levels in proficiency and capability. The establishment of TRADOC continues to invest in the professionalism of the AFV and produces incredible leaders and equipment every day. The AirLand Battle Doctrine was validated ten years after its publication in Operation Desert Storm in 1991 and revalidated twelve years later, with minor adjustments during the famed “Thunder Runs” in 2003.

In the second case study, the civil-military relations follow the Huntington Objective Theory of civilian control in which Secretary Donald Rumsfeld reestablished the civilian control in the DoD. Upon Secretary Rumsfeld entering the Pentagon, the entire climate changed. Not just with the secretary’s office, but many subordinate senior civilians within the OSD were publicly vocal in demeaning senior military leaders on their advice and opinions about military matters. During the first three years of Secretary Rumsfeld’s tenure, as the OSD staff grew by forty-six percent, he cancelled weapons systems that the Army identified as gaps in capabilities like Crusader Artillery system and the Comanche helicopter, while allowing the continued developments of the Future Combat System.¹⁴⁶ At the time of his resignation, the implementation of modularity and the continued investments in the FCS cost the

¹⁴⁵ Winton, 115-117. The first production of the A-10 flew in October 1975, and deliveries to the Air Force 355th Tactical Training Wing at Davis-Monthan Air Force Base, Arizona commenced in March 1976. After their initial development, analysis from TAC and TRADOC studied the capabilities of the A-10 in both simulation and live fire training in developing the deep attack concepts later published in the 1982 version of FM 100-5-*Operations*.

¹⁴⁶ O’Hanlon, 11.

Army nearly \$480 billion dollars, failed to create capable BCTs or develop the fires and aviation platforms that were expected to operate in a decentralized manner with the Brigade-Centric strategy.¹⁴⁷

In analyzing the employment of initiatives during the defense transformation era of 2003, the Army followed the path in the Army Force Development Model in orchestrating the Army Transformation Campaign Plan. The Army used doctrine that was developed in 2000, applied it against the Interim Brigade Combat team in 2001, FCS in 2003 and the modular BCT structure in 2005. Next, the Army correctly implemented the ARFORGEN process that provided training and force management concept to the BCT fleets as the Army executed two wars. The analysis on the doctrinal initiatives will focus on the Army's struggle to adapt the doctrine from the combat actions from October of 2001 through the initial modular BCTs that redeployed to Iraq in 2005. The early events in OEF and OIF changed the character of war.

These events should have caused the Army to reframe the assumptions of the doctrine that drove transformation and the modular BCT in the early part of the Twenty-first Century.

The 2000 Organizations and Operations Concept were built off the two axes of the transformation road map within the Revolution in Military Affairs (RMA) overarching strategy.¹⁴⁸ The first revolution rests on the information technology that linked sensors, decision makers and weapons into a system of systems.

¹⁴⁷ Johnson, Kitchens & Peters, 21.

¹⁴⁸ Ibid., 6.

The second relied upon advanced technologies, and composite materials that were being developed.¹⁴⁹ From these concepts, the Army configured the modular BCT, along with the Interim BCT and the Objective Force. Moreover, within the Transformation plan, the Army placed a milestone in 2002 and 2003 to determine the pace and effectiveness of the science and technology fields' ability to deliver the major platforms of the FCS family of vehicles integrated into the increment one package.¹⁵⁰ There were two events that should have cautioned leaders to adjust the doctrine and organizational initiatives within the transformation plan. First, in July of 2003, after receiving the 134 billion dollar expenditure for milestone B developments of FCS, the contractors informed the Army leadership that they were five years behind and would not be able to deliver minor programs within FCS until 2011. Based on the continued setbacks, General Schoomaker, the newly-appointed Army Chief of Staff, directed the delivery of spinout technologies to provide soldiers and units immediate capabilities that would allow immersion of the emerging technologies to be used in Iraq and Afghanistan.¹⁵¹ It is noteworthy that the Army did not terminate the contract in accordance with the milestone B directive, but rather disaggregated the FCS into smaller sub-component projects.

The second issue was that the recent experiences of Army units in OIF and OEF should have caused the senior leaders to re-examine both the nature of the conflict and the organization structure

¹⁴⁹ Michael McMahon, *Adaptive Transformation Model: A Branch to the Army's Transformation Plan, A View from the Army War College*, edited by Williamson Murray, (Carlisle Barracks: SSI, 2001), 199.

¹⁵⁰ Ibid. The increment one capabilities are the major platforms; Infantry combat vehicle, mounted combat vehicle, Reconnaissance and Surveillance, Non-Line of Sight Cannon, Non-Line of Sight Mortar, Maintenance and Recovery vehicle and Medical Treatment and Evacuation vehicle.

¹⁵¹ Pernin, 36.

within the modular BCT. Despite the experiences in Operation Anaconda in March 2002, and the rapidly evolving nature of the conflict in OIF from 2003-2005, the Army became enamored with proponents of what became known as military transformation and argued for a capabilities-based method of thinking about future war. In practice, however, capabilities-based analysis focused narrowly on how the United States would *like* to fight and then assumed that the preference was relevant.¹⁵² These tenants did not factor the human dimension associated with executing wide area security missions under the unified land operations construct. The dominant assumption of the “Revolution in Military Affairs” was that information would be the key to victory. Concepts of “network-centric warfare,” suggested that near-perfect intelligence would enable precise military operations and point a straight line to success.¹⁵³ They were configured with the notion that brigade-based sensors would paint a clear picture, thus negating the need to deploy off the platform. Some even assumed that the “robust intelligence” would deliver not only a clear appreciation for the current situation, but also generate “predictive intelligence” that would allow US forces to “anticipate the unexpected.” Despite its enthusiastic embrace, the assumption of near-certainty in future war was a dangerous fallacy that did not come to fruition.¹⁵⁴

The third area of analysis is the cost of the force structure change amidst execution during OIF. The original estimates placed the cost for Army modularity at \$21 billion dollars, but as the modularity

¹⁵² McMaster, “On War: Lessons Learned”, 19.

¹⁵³ McMaster, “The Pipe Dream of Easy War”, *New York Times* (July, 2013): 2, accessed January 12, 2015, <http://www.nytimes.com/2013/07/21/opinion/sunday/the-pipe-dream-of-easy-war.html>

¹⁵⁴ LTG McMaster, “Lessons Learned in Tal Afar”, interview, *Frontline*, PBS, February 2, 2007, accessed February 15, 2015, <http://www.pbs.org/wgbh/pages/frontline/endgame/interviews/mcmaster.html>

movement swept over the Army, those costs grew enormously with recent estimates stating that the Army has spent more than \$140 billion dollars on modularity from FY 2005 through FY 2013.¹⁵⁵ To put this into a simpler context, the Army spent nearly \$200 billion dollars from 2005 to 2014 to convert from the legacy brigade structures to forty-three Modular BCTs and then to thirty updated modular BCTs in the course of eight years.¹⁵⁶ In terms of measuring the sustainability of the reform, the decision to transform to smaller modular BCTs and then migrate back to an Army of Excellence type organization does not represent the best return on the investment. This oscillation between force structures cost the Army a quarter of a trillion dollars. From a leader development lens, the Army was not fungible enough to absorb that speed of change, and losing a return on the investment for building leaders for such a limited period.

A final point of analysis in the modularity initiative is analyzing the growth of Operational and Strategic Headquarters. In comparing the method of transformation to the post- Vietnam era, Generals Westmoreland, Abrams and Depuy made conscious decisions to reduce the department level staffs, reducing army headquarters in order to optimize the force structure for greater proportion in the combat formations. During the modularity era, this inability to apply the modular reform throughout the Army is in direct contradiction to the CSA's guidance. What the Army did was more than double the size

¹⁵⁵ Anne Roosevelt, "SASC Wants Independent Report on Army Modularity," *Defense Daily*, vol. 24, no 3, in ProQuest (accessed October 15, 2014).

¹⁵⁶ John L Romjue, *Development of the 1980s Army*, TRADOC Historical Monograph Series (Fort Monroe, VA: Office of the TRADOC Historian, 1997), 164. The Army of Excellence brigade structure consisted of; three maneuver battalions of four company/teams each; eighteen gun Artillery Battalion; three company Engineer Battalion; Forward Support Battalion; and company elements for the military intelligence, MP Company, signal support, and Air Defense Stinger Battery.

of the division and corps headquarters from 415 to 923, while the ASCCs grew from 2,200 to 6,700 across the GCCs, and the DA Staff grew from 4,100 in late 2001 to 8,200 today.¹⁵⁷

This does not account for agencies that are no longer serving soldiers, meaning their portfolio has migrated to a Program Objective Memorandum (POM)-funded Field Operating Agencies (FOA) like the Joint Improvised Explosive Device Defeat Organization (JIEDDO). The Army's Maneuver Support Center of Excellence at Fort Leonard Wood has proponentcy over JIEDDO's portfolio, conducts the education, training and leader development of the skill set, which is a part of every Combat Training Center (CTC) and supported by TRADOC, yet the organization remains open. They consume a budget of \$1.6 billion dollars, and have a MTOE of 415 personnel.¹⁵⁸ At a time when the Army is in heated discussions over five thousand billets or one BCT in a contentious district, there may be another way to reframe the organizational architecture of the Army in adding more tooth in its force structure similar to General Abrams' approach forty years ago.

The final area of analysis is measuring the effectiveness of the ARFORGEN process. The ARFORGEN process was incredibly helpful as the Army transitioned to an expeditionary force from 2005 through 2007, moving the most sophisticated military equipment around for multiple rotations throughout the CENTCOM AOR. The challenge with ARFORGEN was that it was not managed at the department level, and thus did not provide the senior leaders of the Army an accurate depiction of what

¹⁵⁷ John Pendleton, 27. The time for change is now. As DoD headquarters efforts in contingency operations wind down, the department has recognized that the Army and many GCCs have enduring costs that are expected continue after ongoing operations end, but the majority of the cost to operate the inflation of higher headquarters staffs are funded with OCO funds.

¹⁵⁸ JIEDDO Homepage, accessed on 8 March 2015, <https://www.jieddo.mil/index.aspx>

readiness cost during the Ready and Train cycles. By conducting wholesale, national-level reset, an Army division cost \$1.8 billion dollars over a three-year ARFORGEN cycle.¹⁵⁹ That is an increase of 500 percent of the prewar Operations and Maintenance funds. The critique on using ARFORGEN is not that it is poor model, but rather the Army failed to adjust the model to transition it to a sustainable one that the Army could use after the overseas contingency funds were eliminated as a resourcing stream. To the Army's credit, they did transition in 2012 to the RAF model, which does target reset and relies mostly on the unit level and direct support maintenance within BCTs to repair and refit the formations. In reviewing the initiatives implemented during the defense transformation era of 2003, the senior leaders and defense institutions were slow to react to the signals that warranted change. The change of nature in doctrine greatly affected the modularity and unnecessary oscillation of force structure and the enormous amount of money spent in readiness in the ARFORGEN were all unsustainable applications of transforming, which were exacerbated because the transformation was performed while in contact with the enemy.

In summarizing the analysis of the two case studies, the civil-military support of the post-Vietnam transformation exhibited the "Madisonian" model of CMR that empowered senior military leaders to restructure the Army that produced TRADOC, and distributed the task of transforming the Army to the major subordinate commanders that would oversee its integration. This enabled the senior military leaders in implementing a series of interrelated and sustainable initiatives at the conclusion of

¹⁵⁹ Pernin, 29. The DOD IG recommended that the Army take a series of actions to improve its use of home station training and installation level support in order to defray the cost of national reset and use of contracted new equipment training teams.

the Vietnam War that resulted in the holistic reforms of doctrine, organization and training initiatives, which were affordable and endured through the Army's next conflict.¹⁶⁰ The defense transformation in the Twenty-first Century occurred in a distinctly opposite civil-military environment. General Shinseki and other senior leaders did not have the constructive relationship with the civilian superiors that allowed Army to provide their best military advice, nor modify the advice, based on the conditions in the early stages of combat operations in the OEF and OIF. It was this draconian style, which facilitated the senior military leaders inability to refine the pre-war assumptions in addressing the changing in nature of the conflict, that led to the continued pursuit of FCS and transformation to modular BCTs that were not equipped for the current or future fights and collectively cost the Army \$480 billion dollars.¹⁶¹

Conclusion

The review of the two case studies demonstrates valuable lessons in senior military leaders' ability to shape and manage transformations following war. General Abrams displayed great mastery in the ability to anticipate and manage the transformation after the Vietnam War. The relationship between General Abrams and his multiple civilian leaders enable the Army to form a collaborative effort that was outlined in Dr. Chris Gibson's "Madisonian" approach of civil-military theories. His experiences during his initial assignments gave him great credibility and solidified his reputation as a candid leader who was well-prepared and unfazed when dealing with senior civilian officials.

The post-Vietnam War transformation was executed in time of peace and was fortunate to be able to leverage the lessons learned from the Yom-Kippur War. The lessons learned from the Arab-Israel

¹⁶⁰ Gibson, 103.

¹⁶¹ Francis, 20.

War of 1973 served as a catalyst in driving the US Army's doctrine and training initiatives, which validated the Total Force Concept that was implemented after the Vietnam War. This transformation was made possible by the organizational reform achieved through the STEADFAST reorganization in 1973 that built TRADOC, enabled the revision of FM 100-5 from Active Defense in 1976 to the establishment of AirLand Battle in 1982 and developed training systems to develop a modern Army. General Abrams' biggest contribution was his ability to develop leaders and place key protégés in strategic leadership that provided unprecedented continuity to the Army while it transitioned from a conscript-based Army to a professional All-Volunteer Force. Men such as Generals William E. DePuy and Don Starry guided the institutional Army towards its renewed and tightly focused mission. What emerged was an institution that prepared itself almost exclusively for the mission that seemed to provide both the greatest and the most traditional challenge, large-scale theater warfare. The emergence of TRADOC signaled the degree to which "lesson learning" and historical and strategic reflection became institutionalized in the post-Vietnam era. The growth of this institutionalized learning process is still a part of the Army today.¹⁶²

In examining the second case study, the civil-military dialogue during transformation and developmental stages of modularity displayed Secretary Rumsfeld's intent in curtailing what he perceived as advocacy of military options in shaping national security strategy, which had occurred during the Clinton administration. This approach represented the purest Huntington Objective Approach, which subordinated the military advice and produced a climate prohibiting any form of

¹⁶² Davis, 68.

collaboration between the senior levels of the military and civilian leadership within the DOD from 2000 to 2006.

The disruptive nature of communications with the civilian and Army leaders in DoD contributed to the over reliance on technology in the pre-war doctrine that mischaracterized the nature of combat operations at the initial operations in OIF and OEF. The defensive nature of senior DoD leaders and the toxic climate in turn lacked the institutional adaptability to shift in Army's understanding of the new nature of warfare. The inability to adapt led to the Army's continuance in transforming to a modular BCT structure that was not optimized against the hybrid threats, and cost the Army \$210 billion dollars to refine throughout the duration of the conflicts in Iraq and Afghanistan. In the most recent transformation, there were many effective reforms. Modularity reduced the BCT types from seventeen to three cohorts, distributed the enablers down to the BCT-level and built combined arms teams that were organic in nature.¹⁶³ While modularity's intention was centered on the BCT, the Army continued its growth through operational and strategic headquarters. Today, those staffs are in dire need of reform to align with the Mission Command assumptions upon which modularity was built. The integration of ARFORGEN was an ideal system that was built out of necessity but for a limited period. The decision to extend short term solutions to standard enterprises cost the Army four hundred percent higher sustainment cost than utilizing standard maintenance and training systems within the division.¹⁶⁴ The recent transition from the progressive readiness model to the combined model created in 2012 provides

¹⁶³ Aaron Martin and Jordan Fischbach, *A Review of the Army's Modular Force Structure* (Santa Monica: RAND, 2012), 17.

¹⁶⁴ Pernin et al, *Efficiencies from Applying a Rotational Equipping Strategy*, 41.

a tailorable force for the GCCs that are affordable and which possess the ability to integrate aspects of the RAF construct.

While today's demands differ from those in the past, the evidence in this research indicates that productive and open dialogue within CMR is essential for effective transformation. The Madisonian approach to civil-military relations provides the most balanced and collaborative approach to facilitate successful transformation. Successful transformation demands that senior leaders are empowered with broad authority able to design, evaluate, and execute an integrated program of reforms.¹⁶⁵ Transformation is most effective when those reforms contain a doctrinal underpinning, which allows the changes in the organizational structure and training initiatives to remain intact for the next war.

Current conventional wisdom sees transformation as an obsolete phrase associated with Secretary Rumsfeld or concepts like "Net-Centric Warfare." In fact, a great deal of transformation lies ahead or, if the Army is to avoid the turbulent management of reform in the future, especially during conflict.¹⁶⁶ As the Army enters the second decade of the Twenty-first Century, the Army again faces the need to change to become more capable of meeting the country's national security needs given new strategic and fiscal uncertainties.¹⁶⁷ Why does this matter? The reality is that the nation lives in a much more competitive security environment. This means the Army has to learn faster and better than its

¹⁶⁵ Lovelace, vii.

¹⁶⁶ Davis, 40.

¹⁶⁷ Nielsen, 33.

future adversaries.¹⁶⁸ The Army cannot afford to spend another fifteen years and \$480 billion dollars on the next version of FCS or modular BCT designs in preparation for the next war.

¹⁶⁸ TRADOC PAM 525-8-2, *US Army Learning Concept for 2015* (Washington DC: Government Printing Office, 2014), 3.

Bibliography

- Abrams, Creighton, W. Jr. "The Sixteen Division Force: Anatomy of a Decision." MMAS, Command and General Staff College, 1975.
- Atlantic Council Report. *All Elements of National Power; Moving Toward a New Interagency Balance for US Global Engagement*. Washington, DC: Atlantic Council, 2014. Accessed October 10, 2014.
<http://www.atlanticcouncil.org/publications/reports/all-elements-of-national-power>
- Army Doctrine Publication (ADP) 3-0, Unified Land Operations. Washington, DC: Government Printing Office, 2012.
- Betts, Richard K. "Are Civil-Military Relations Still a Problem?" in *American Civil-Military Relations: The Soldier and the State in a New Era*, edited by Suzanne C. Nielsen and Don M. Snider. Baltimore: The Johns Hopkins University Press (December 2009): 3-41.
- Barno, Dave, LTG (R). "The Best Defense." *Foreign Policy* (September 2014): 1-24.
- Barone, Michael. "War is Too Important to be Left to Generals." *Time Magazine* (June 2002): 31-35.
- Bell, William G. and Karle E. Cocke. *Department of the Army Historical Summary*. Washington DC: Center for Military History, 1973, Chapter 4. Accessed December 13, 2014,
<http://www.history.Army.mil/books/DAHSUM/1973/chIV.htm>
- Benson, Bill. "Unified Land Operations: The Evolution of Army Doctrine for Success in the Twenty-First Century." *Military Review*. March-April Issue (December 2012): 51-58.
- Brown, Frederic. *US Army in Transition*. Beverly Hills: Sage Publications, 1973.
- Brownlee, Less Acting Secretary of the Army and General Peter J. Schoomaker, Army Chief of Staff. "Serving a Nation at War: A Campaign Quality Army with Joint Expeditionary Capabilities." *Parameters*, Carlisle Barracks, PA (July 2004): 32-39.
- Buchalter, Alice and Seth Allen. *Historical Attempts to Reorganize the Reserve Components: A Report by the Federal Research Division, Library of Congress under an Interagency Agreement with the Commission on the National Guard and Reserves*. Washington, DC: Library of Congress, 2007.
- Burk, James. "Theories of Democratic Civil-Military Relations." *Armed Forces and Society*, Vol 29, no 23 (September 2002): 7-29.
- Burke, Michael. "Doctrine for a Transforming Force." *Military Review*, no. 2, (March 2002): 91-97.
- Canedy, Susan and Anne W. Chapman. *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973 – 1993*. Washington, DC: University Press of the Pacific, 2002.
- Clark, Bruce. *Twenty-Five Year War*. Lexington: University of Kentucky Press, 1984.
- Cole, Henry G. and General William E. Depuy. *Preparing the Army for Modern War*. Lexington: University Press of Kentucky, 2008.

Congressional Research Service. "The Costs of Iraq, Afghanistan, and Other Global War on Terror Operations Since 911, 2011." Accessed September 8, 2014, http://assets.opencrs.com/rpts/RL33110_20110329.pdf

_____, "Costs of Major US Wars.,2010." Accessed September 1, 2014, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA 524288&Location=U2&doc=GetTRDoc.pdf> (accessed September 1, 2011).

_____, "US Army's Modular Redesign Issues for Congress, 2006."

Cone, Robert W. "Shaping the Army of 2020." *ARMY* (October 2011): 71-77.

Cragg, Dan. *Generals in Muddy Boots*. New York: Berkley Books, 1996.

Currie, James T. "The Army Reserve and Vietnam." *Parameters* Vol. XIV, no. 3 (May 1984): 81-83.

Currie, James T. and Richard B. Crossland. *Twice the Citizen: A History of the United States Army Reserve, 1908-1995, 2nd Edition. DA PAM 140-14*. Washington, DC: Office of the Chief, Army Reserve, 1997.

Dallek, Robert. *Partners in Power: Nixon and Kissinger*. New York: Harper Collins Publishing, 2009.

Dempsey, Martin E. (GEN). *2014 QDR, Chairman's Assessment of the QDR*. Washington, DC: Joint Staff, 2014.

_____, Speech to Center of New American Studies (CNAS). *Civil-Military Relations and Managing Transitions*. Washington, DC, November, 2014.

Depuy, William E. (GEN). *Oral History of General William Depuy*. Carlisle Barracks: Army Heritage and Education Center (AHEC), June, 1978.

_____, "Keynote Address to TRADOC Leadership Conference." May 22, 1974.

Derrick, Dave (MAJ) and Major Holly Harris. *Department of the Army-SSO RAF*, Information Paper. Washington, DC: DA Printing Office, 2013.

Donnelly, Thomas and Frederick Kagan. *Ground Truth: The Future of US Land Power*. Washington, DC: AEI Press, 2008.

Feaver, Peter D. and Richard H. Kohn. "The Gap: Soldiers, Civilians, and their Mutual Misunderstanding." *The National Interest*, Vol 61, (Sep, 2000): 141-147.

Field Manual (FM) 3-0, *Operations*. Washington, DC: Government Printing Office, 2001

Field Manual (FM) 3-0, *Operations*. Washington, DC: Government Printing Office, 2008.

Field Manual (FM) 90-21, *JAAT, Multiservice Procedures for Joint Attack Team Operations*. Hampton: Government Printing Office, 1988.

Field Manual (FM) 100-5, *Operations*. Washington DC: Government Printing Office, 1988.

Field, Kimberly, James Learmont, and Jason Charland. "Regionally Aligned Forces: Business Not as Usual." *Parameters* 43, no. 3 (Autumn, 2013). Accessed February 11, 2014 <http://search.proquest.com/docview/1462044522?accountid=28992>.

- Fredley, Michael L. "An Analytical Framework for Assessing Future Force Structure Requirements under Uncertainty." Master of Science in Operations Research, Air Force Institute of Technology, 1995.
- Gibson, Christopher P. *Securing the State: Reforming the National Security Decision-making Process at the Civil-Military Nexus*. Burlington: Ashgate Publishing Company, 2008.
- Goldich, Robert L. *The Army's Round-out Concept After the Persian Gulf War*, Washington, DC: October, 1991.
- Goodpastor, Andrew. "Educational Aspects of Civil-Military Relations." *Civil-Military Relations*. Washington, DC: American Enterprise Institute for Public Policy Research, 1977.
- Griffith Jr., Robert K. *Men Wanted for the US Army: America's Experience with an All-Volunteer Army between the World Wars*. Westport: Greenwood Press, 1982.
- Grossman, Elaine. "Critique of Army Redesign Proves Highly Contentious Inside the Service." *Insider Magazine*, Washington, DC: Inside Washington Publisher, 2006. Accessed March 1, 2015, http://www.dnipogo.org/grossman/Army_redesign.htm
- Hagel, Chuck. *Quadrenial Defense Review*. Washington, DC: Office of the Secretary of Defense, 2014.
- Hamilton, Alexander. *The Federalist Papers*. New York, Bantam Publishing, 1787.
- Hearing before the Subcommittee of the Committee on Appropriations, Department of Defense Appropriations for 1975, Hearing, 93d Cong., 2d Sess., March 5, 1974, 610.
- Herbert, Paul. *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations*. Leavenworth, KS: Combat Studies Institute, 1988.
- Herspring, Dale. *The Pentagon and the Presidency*. Lawrence: University Press of Kansas, 2005.
- Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge, The Belknap Press of Harvard University Press, 1957.
- Johnson, Stuart, John E. Peters, and Karin Kitchens. *A Review of the Army's Modular Force Structure*. National Defense Research Institute, (March 2012): 1-21.
- Julia, Francis T. Jr. *Army Staff Reorganization, 1903-1985*. Washington, DC: US Government Printing Office for Analysis Branch, CMH, 1987.
- Kirkpatrick, Charles E. *An Unknown Future and a Doubtful Present; Writing the Victory Plan of 1941*. Washington, DC: Center of Military History, 1992.
- Laird, Melvin R. *Support for Guard and Reserve Forces, Memorandum for Secretaries of the Military Departments*. Washington, DC: US DOD, 1970. Reprinted in Congressional Record, Vol. 116, September 9, 1970.
- Lord, Harold. *How the Army Runs*. Student Text, US Army War College, 2013.
- Lovelace, Doug. "Beyond the Battlefield: Institutional Army Transformation Following Victory in Iraq". Carlisle Barracks: *Army Review*, (December 2012): 1-10.

- Lukenas, Leo A. "An Analysis of the Budgetary Behavior of the House Appropriations Committee on Defense Spending." Monograph, Naval Post Graduate School, 1974.
- Martin, Aaron and Jordan Fischbach. A Review of the Army's Modular Force Structure. Santa Monica: RAND, 2012): 10-12.
- McGrath, John. *The Brigade: A History, Its Organization, and Employment in the US Army*. Leavenworth, KS: Combat Studies Institute, 2004.
- McMaster, H.R. (LTG). *Dereliction of Duty: Johnson, McNamara, the Joint Chiefs of Staff and the Lies that Led to Vietnam*. New York: Harper Collins Publishers, 1997.
- _____, "On War: Lessons to be Learned." *Survival Magazine*, Vol 50, no 1(April 2008): 12-18.
- Miller, William I. *The Mystery of Courage*. Cambridge: Harvard University Press, 2000.
- Millett, Allan R., and Peter Maslowski. *For the Common Defense: A Military History of the United States of America*. 2nd ed. New York: Free Press, 1994.
- Moenk, Jean R. *Operation STEADFAST Historical Summary. Fort Monroe: Historical Offices of US Forces Command and US Training and Doctrine Command*. Hampton: TRADOC Printing Office, 1973.
- Moten, Matthew. *Between War and Peace*. New York, Free Press, 2011.
- _____, The Army Officers' Professional Ethic—Past, Present, and Future. Carlisle Barracks: Strategic Studies Institute, 2012. Accessed December 13, 2014. <http://www.StrategicStudiesInstitute.Army.mil/>
- Murdock, Clark A., and Michele Flournoy, Christopher Williams, and Kurt Campbell. *Beyond Goldwater–Nichols: Defense Reform for a New Strategic Era*. Washington, DC, Center for Strategic and International Studies, 2004.
- Murray, Williamson, and Allan R. Millett, eds. *Military Innovation in the Interwar Period*. New York: Cambridge University Press, 1998.
- Nielsen, Suzette and Don Snider. *American Civil-Military Relations and the State in a New Era*. Baltimore: Johns Hopkins University Press, 2005.
- _____, "An Army Transformed: The US Army's Post-Vietnam Recovery and the Dynamics of Change in Military Organizations." *Letort Papers* (July 2010): 3-41.
- O'Hanlon, Michael. *Rumsfeld's Revolution at Defense*. Washington, DC: Brookings Institute Press, 2005.
- Pernin, Christopher, Ed Wu, Aaron Martin, and Gregory Midgette. *Efficiencies from Applying a Rotational Equipping Strategy*. Santa Monica: Rand-Arroyo Center, 2010.
- Puryear, Edgar F. *Nineteen Stars: A Study in Military Character and Leadership*. Virginia: Green Publisher, 1971.
- Ricks, Thomas E. *The Generals: American Military Command from World War II to Today*. New York: Penguin Press, 2012.
- _____, *Fiasco: The American Military Adventure in Iraq*. New York: Penguin Press, 2006.

- Roman, Peter J. and David W. Tarr. "The Joint Chiefs of Staff: From Service Parochialism to Jointness." *Political Science Quarterly* 113, no. 1 (March 1998): 11-19.
- Rose, Gideon. *How Wars End: Why We Always Fight the Last Battle*. New York: Simon & Shuster, 2010.
- Rosen, Stephen Peter. *Winning the Next War: Innovation and the Modern Military*. Ithaca: Cornell University Press, 1994.
- Rumsfeld, Donald. *Quadrenial Defense Review*. Washington, DC: OSD, 2001.
- Schraeder, Charles R. *History of Operations Research, Vol. III: 1973-1995*. Washington, DC: Government Printing Office, 2009.
- Sorely, Lewis. "Creighton Abrams and Active-Reserve Integration in Wartime." *Parameters* (June 1991): 35-50.
- _____. *Thunderbolt: General Creighton Abrams and the Army of His Times*. Bloomington: Indiana University Press, 1991.
- _____. *Press On: Selected Works of General Don A. Starry, Volume I-II*, Fort Leavenworth: Combat Studies Institute Press, 2009.
- Shunk, Dave. "The Failure to Adapt and Innovate after a Drawdown: The US Army in the Interwar Years 1919-1939." *Small Wars Journal*, June 2013.
- Steele, Dennis. "The Army Magazine Hooah Guide to Army Transformation." *Army Magazine*. Washington, DC: AUSA, 2001. Accessed February 19, 2015. www.ausa.org/Armyzine/Welcome.html
- Stewart, Richard. *The US Army in a Global Era, 1917-2003, American Military History*. Washington, DC: Center of Military History, 2005.
- TRADOC PAM 525-3-1, *2010 Army Operating Concept*. Hampton: TRADOC Printing Office, 2010.
- US Government Accountability Office. Testimony before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, House of Representatives. "Force Structure: Restructuring and Rebuilding the Army Will Cost Billions of Dollars for Equipment but the Total Cost Is Uncertain." Statement of Janet A. St. Laurent, Managing Director, Defense Capabilities and Management. Washington, DC, April 10, 2008.
- Watson, Cynthia A. *Combatant Commands: Origins, Structure, and Engagements*. Westport: Praeger, 2010.
- Weisgerber, Marcus. "Pentagon, Regional Staffs Growing Despite Orders to Trim Personnel." *Defense News*, June, 2013. Accessed December 22, 2013. <http://archive.defensenews.com/article/20130602/DEFREG02/306020011/Pentagon>
- Wilson, Bennie. *The Guard and the Reserves in the Total Force: The First Decade 1973-1983*. Washington, DC: NDU Press, 1985.